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THE UNIVERSITY OF ALBERTA

IDENTIFICATION OF EDUCATIONAL NEEDS
FOR
ONCOLOGY NURSES

by

MARION J. BOYD

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE
OF MASTER OF EDUCATION

DEPARTMENT OF EDUCATIONAL ADMINISTRATION

EDMONTON, ALBERTA

SPRING, 1987

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The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, a thesis entitled "Identification of Educational Needs for Oncology Nurses" submitted by Marion J. Boyd in partial fulfillment of the requirements for the degree of Master of Education.

....

Supervisor

....

....

....

Date: March 11, 1987

ABSTRACT

There is an increased interest in the educational needs of nurses working in specialty areas and in the development of educational programs to meet these needs.

This study was undertaken to identify competencies perceived as necessary for nurses who practise in oncology nursing. Questions investigated included: whether nurses practising in this specialty perceived the competencies as relevant and, if so, how these competencies are acquired; and, whether the competencies were perceived to be entry or developmental by the respondents.

The study was divided into two phases. The purpose of the first phase was to identify the competencies using a group of nurses working in oncology nursing. The document developed was used in the second phase of the study in order to identify the relevance of the competencies as perceived by nurses practising in the specialty, how the competencies are acquired and which are necessary as entry level competencies. In both phases of the study, conclusions were based on the opinions of current practitioners of oncology nursing.

The outcomes of the study include a validated Competency Analysis Profile for Oncology Nursing. A critique of the process used to develop the profile is presented. Recommendations are related to developing educational programs for specialty nursing programs, specifically oncology nursing.

It is anticipated that these findings can form the basis of a curriculum for certification purposes and will be of use in developing courses in oncology nursing at the college and university level. Orientation needs for nurses working in oncology can also be identified using the profile.

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CHAPTER I

INTRODUCTION

Identification of the Problem

Patient care settings and nursing practices are becoming increasingly specialized and complex, making it impossible for nurses to acquire, in their preservice educational programs, all the knowledge and skills that are required to meet the complex needs of patients in specialized areas.

It has, therefore, become essential to design both effective orientation and continuing education programs for nurses who wish to work in these areas and also programs at the graduate level for nurses who wish to specialize in a particular field. The Alberta Association of Registered Nurses (1970) supports this view, stating that

> ... basic nursing education is only the first step toward professional competence. Nursing practice today must be based on an expanding body of knowledge which is not only kept up to date but also parallels the changes in the community health sciences and the rapid developments in medical and social sciences (p. 39).

In order to ensure the development of pertinent programs, the nursing practices in each specialized area and the specific skills required to work in each area must be determined (Alberta Advanced Education and Manpower, 1977).

One such area of specialization is the area of oncology nursing. With advances in medical science and technology, which have resulted in more aggressive treatment for patients with cancer, this area of nursing has become, over the past five years, a rapidly developing area of specialization. Increasing interest is being shown in educational programs for nurses who care for cancer patients. Planned in-depth orientation programs have become essential.

New employees come to the oncology setting from different educational backgrounds with different post-graduate clinical experience and therefore differing orientation needs. In times of diminishing resources in the field of health care, it is essential to make the most efficient use of those resources that are available. Therefore, before planning orientation programs, it is necessary to develop a means whereby new employees can diagnose their learning needs. In order to do this, competencies which a nurse must possess in order to provide safe, comprehensive, professional nursing care to cancer patients and their families, must be identified.

Statement of the Problem

Little or no information is available, however, on the following issues:

1. What competencies are perceived as necessary for nurses who practise in oncology nursing?

2. How are the identified competencies acquired?

Objectives

The specific objectives of the study reported here are:

1 (a) To develop an instrument which will describe the competencies necessary for nurses practising in oncology nursing,

  (b) To validate the instrument,

  (c) To identify which competencies are necessary as entry level competencies.

2. To identify how nurses practising in oncology acquire the competencies which they possess.

3. To assess the effectiveness of the process used to develop and validate the instrument.

The outcomes of the study include: a set of competencies which have been identified as Entry Level Competencies for Oncology Nurses and a validated Competency Analysis Profile for Oncology Nursing.

Significance of the Study

It is anticipated that these findings could contribute to the development of post-graduate programs in oncology nursing by identifying competencies which are required by nurses specializing in this field. These can form the basis of a curriculum for credentialing purposes and be of use in developing courses in oncology nursing at the college and university level.

It is further anticipated that these findings could contribute to the development of educational programs for nurses employed by the Alberta Cancer Board (A.C.B.) by providing a profile of competencies required by all new nurse employees. This profile could form the basis for orientation programs in nursing and would allow each new employee to assess her individual learning needs, thus facilitating the individualization of the orientation program and assisting in ensuring the competence of all new employees.

The study will also provide an inventory of competencies which are identified as developmental. This inventory will enable all nurses within the Institute to identify their individual needs for continuing education and assume a greater accountability for their professional development.

Further development of the profile will result in criteria which will assist in more objective performance appraisal of staff nurses.

The profile will enable increased cost effectiveness in educational programming within the Alberta Cancer Board allowing sharing of educational programs between the various institutes under the auspices of the Board.

Delimitations

The study is limited to competencies necessary for caring for adult patients. Although similar competencies may be necessary for the care of paediatric oncology patients, it is felt that the differences between adult and paediatric nursing make a separation between the two essential (Harris, 1982).

The study is limited to nurses employed by the Alberta Cancer Board within the Cross Cancer Institute.

Limitations

The initial identification of competencies relies on data gathered from nurses who are presumed to be knowledgeable and competent in the field of oncology nursing.

Assumptions

1. Nurses working on oncology units can identify and articulate the competencies that nurses on these units require.

2. Individuals active in a profession have the most relevant information about the competencies required to function satisfactorily in that profession.

Definition of Terms

The concepts pertinent to this study are defined as follows:

Competence:

The ability to do well something worthwhile; the knowledge, skills, values, and attitudes needed to carry out properly an activity important to success in one's personal or professional life; the ability to meet or surpass prevailing standards of adequacy for a particular activity (Butler, 1978 : 7).

Competence-based education:

Derived from and organized around an agreed-upon set of competencies, and which provide the learning experiences designed to lead to the attainment of those competencies (Butler, 1978 : 7).

Competency analysis profile:

A document outlining the major categories of competence, and specific competency statements that together represent the expected knowledge, skills, and attitudes required to function effectively in a specific occupation (Manuel and Deane, 1976).

Developmental competency:

One that may be acquired during employment by a practitioner to enhance performance on the job (Young-Checkland, 1984).

Entry competency:

One that is required by new employees in order to perform effectively on the job and meet the prevailing standards of adequacy.

Oncology nurse:

A registered nurse who works in a unit within a hospital which is dedicated to the care of patients with cancer.

Preservice educational programs:

Educational programs offered in universities, colleges and hospital schools of nursing to prepare individuals as registered nurses.

CHAPTER II

REVIEW OF SELECTED LITERATURE

This chapter identifies the need to develop educational programs, within and outside health care agencies, for nurses working in oncology nursing. It is further designed to demonstrate that a competency-based program is one of the most efficient and effective approaches to use in developing these programs. The first step in the development of such a program is the identification of competencies required by nurses working in this specialty.

The literature review will therefore concentrate on the following areas: educational preparation that is available to nurses who work with cancer patients; the need for cost-effective orientation programs in health care agencies which also ensure competence; competency-based education; methods of identifying the competencies required by individuals in an occupation and professions.

ONCOLOGY NURSING

> With the many advances in medical science, biophysics and radiobiology, the treatment of patients with cancer has become increasingly aggressive in an attempt to cure or control disease. The field of palliation and supportive care has also enlarged, offering new interventions to increase patient and family comfort.
>
> (Marino, 1981)

The treatment and management of cancer requires the expertise of a multidisciplinary team. The role of the professional nurse on the team is continually expanding and the extent to which this expanded role is accepted by society and by the other members of the health care team will be determined by the expertise of the individual oncology nurse (Henke, 1980). Furthermore, the extent to which the expanded role is accepted by the nurse herself is determined by the availability of appropriate educational programs either within the employing agency or through post-graduate specialization programs (Alberta Hospital Association, 1978). Adequate education is, therefore, necessary to enable nurses to deal expertly and effectively with cancer patients (Clark, Rice and Lowry, 1976).

TRAINING AVAILABLE

Within Alberta, at this time, there is an increasing demand for educational programs for nurses working in oncology. This is reflected in continuing education programs for nurses that are offered by the Alberta Hospital Association, the University of Alberta, and Grant McEwan Community College (Alberta Association of Registered Nurses, 1984). An educational program for nurses caring for cancer patients in their homes has also been developed (Boyd, LeGris, and Mah, 1984).

Until recently, there was no formal education available for cancer nurses; training was experiential, with nurses learning at the bedside (Henke, 1980). Although experience with cancer patients is part of the preservice nursing education programs, nurses are generally not given sufficient knowledge and skills to provide specialized nursing care to these patients (Given, 1980; Tiffany, 1975). In the United States, programs have now been developed at the Master's and Doctoral levels and a certification process has been implemented by the Oncology Nursing Society (1986). In the United Kingdom, a clinical program organized by the Joint Board of Clinical Nursing Studies prepares nurses for oncology nursing at different levels of expertise depending on their preservice training. In Canada, apart from a recently established course at Ryerson College which can be pursued on a part-time basis, there are no training programs for cancer nursing. There is, however, an increasing interest in specialization in nursing and a concomitant interest in establishing credentials for identified specialties. The Canadian Nurses' Association is committed to the development of certification programs for clinical and functional nursing specialties in Canada (Canadian Nurses' Association, 1984). Pick (1984) states that prior to implementation of such programs, there must be agreement across the country on the needs of the learners in nursing specialties.

Again, in the United States there are several specialization certification programs in place; in Canada, the only group recognized presently at a national level with a specialty certification program is the Occupational Health Nurses.

It is now time to formalize the educational process for oncology nurses, both within and outside the health care agencies, in order to better prepare them to assume the many responsibilities created by the rapid growth of knowledge and technology. The programs must also be easily modified in order to incorporate new knowledge and skills and the continual expansion of the nurse's role (Given, 1980).

The nurse must be provided with knowledge, attitudes, values, and skills which enable her to implement safe, comprehensive care to cancer patients and their families. This raises questions, not only concerning the content which should be taught, but also concerning the depth at which it should be taught, since not every practitioner needs to be prepared to function at the same level of expertise (Mazonson, Wu, and Scaltrito, 1981; Zarnow, 1977). The Oncology Nursing Society

(1982) has initiated work in this area by developing Outcome Standards for Cancer Nursing Education. This set of guidelines identifies five broad areas of knowledge which should be addressed in educational programs: individual and family; health care system; health-illness continuum; community and environment; and nursing methods. However, specific competency requirements to achieve these standards have not been identified.

Henke (1980) states that the issue of a theory-oriented versus a task-oriented approach to nursing education must be kept in perspective.

> "We have fled from a 'task-oriented' to a 'theory-oriented' approach and on occasion to such excess that we fail to recognize that our value to the health care system lies primarily in the tasks we perform." (p. 8)

It is therefore necessary to identify the competencies required to perform these tasks at an optimal level and to ensure not only that these elements are included in the educational content but also that nurses are able to apply these competencies in their practice (Cantor, 1975).

Given (1980) agrees that cancer nursing must be technique-oriented but warns that theory development should not be forgotten. However, professions have to ensure that their members, trained in theoretical materials, can in fact practise competently. It appears that it is possible to identify and ensure competency in the necessary tasks while still basing practice on an appropriate theoretical base (Oleson, 1979). Oleson (1979) states that this

> "... effort to tie the learning of professional skills closely to their practice, attempts to bridge the ever present gap between educators in professional schools and practitioners in the real world into which students graduate." (p. 209)

Gale and Pol (1975) state that

> "No group can claim professional standing without explicit statements about what constitutes competence in that field and the means by which competence can be obtained and assessed." (p. 20)

Arcand (1980) and Molyneux (1983), in studies conducted at the Cross-Cancer Institute, in Edmonton, Alberta, both identified the feeling of being ill-prepared for their job as a significant source of stress for oncology nurses. Both confirmed the need for the development of educational programs to meet the specific learning needs of oncology nurses.

ORIENTATION PROGRAMS

At this time, as no other educational programs are available, agencies dedicated to the care of cancer patients must provide the additional preparation required by nurses.

According to Stringham and Smith (1974), 70% of the health care budget is allocated to personnel costs. With the growing concern about the cost of health care in Canada, it appears to be necessary for administrators to ensure that these programs are relevant and beneficial to both the organization and the individual employee. The newly employed nurse should be prepared to function effectively as soon after commencing employment as possible.

Orientation programs are provided by most organizations and are designed to inform employees of the employer's expectations of them and to deliver information which new employees are assumed to require before they can function (Kruger, 1978; Tobin, 1974). Within agencies specializing in oncology, an extensive classroom and clinical program is necessary for nursing personnel. This type of orientation is a costly process and should be offered in as effective and efficient a way as possible (del Bueno, 1981).

Difficulty arises due to the diversity of preservice educational preparation available for Registered Nurses. New employees come to health care agencies with different knowledge levels, different competencies, and therefore different orientation needs. Frequently orientation programs do not meet the needs of new employees as there is no clear definition of the desired competencies against which the individual learning needs of nurses can be determined (Boyd and Conrad, 1981; Moran, 1980).

Orientation programs must be relevant to both learners and society or else learners will lose faith in their instructors and experience difficulties when they enter the work situation (McCloskey, 1974; Mumford, 1972; McCool, 1977; Bedwell, 1978). The initial period of employment in an agency has been identified as one of rapid turnover of new nursing employees. One reason cited for this is that nurses who are unable to perform the required skills tend to suffer not only a lack of job satisfaction but also a loss of self esteem and may resign to prevent further loss of self-esteem (Kramer, 1974; Korman, 1970). However, by providing learning experiences that are relevant to the world of work, such as those from occupationally derived sources, learner motivation and self esteem are enhanced (Braden, 1975). New employees, therefore, must be given the opportunity to learn the required skills. A failure to provide this opportunity results in an increased staff turnover (Kruger, 1978). This turnover causes an additional expense for hospitals where employees frequently undergo an expensive orientation period only to resign.

Patients have the right to expect that the nurses who care for them are competent. Increasingly, employers are being called to account for having provided inadequate educational programs for the new employee (Canadian Council for Hospital Accreditation, 1983). There is growing concern, therefore, among administrators in health care agencies that they are able to demonstrate the competence of their employees in order to achieve the standards of practice expected by society (Gargaro, 1983; Sovie, 1982). This accountability imperative has resulted in an increased need to provide structured orientation and staff development programs with clearly identified learner expectations.

These growing concerns about the high cost of orientation programs, educational accountability, and the extremely individualized needs of newly employed nurses have given rise to a renewed interest in competency-based education in nursing (Kermacks, 1979; del Bueno, 1978).

COMPETENCY-BASED EDUCATION

Competency-based education arose out of a concern for greater efficiency and cost effectiveness and "a need for a closer fit between an ever more costly system of higher education and the needs of a highly technological society for skilled workers" (Grant, 1979, p. 10). It also developed as a response to public demands for an improvement on perceived lowering of standards of workmanship (Burns and Klingsted, 1973).

Competency-based education may be defined as:

> ... a system of education which places high emphasis on the specification, learning and demonstration of these competencies which are of central importance to the effective practicing of a given profession or career. The term encompasses all major educational constituencies and it includes all professions.
>
> (Knaak, 1977, p. 11)

A competency-based education approach has been used in planning education programs for other professions such as law (Elbow, 1979), pharmacy (Oleson, 1979), teaching (Shearron and Johnson, 1973; Houston, 1973), and also in several nursing programs (Cavart and Burgie, 1979; Dawson, 1979; Louisiana State Department of Education, 1976; Oleson, 1979). These programs all have the following common factors: the definition of what the learner should be able to do; the development of learning experiences to enable learners to achieve the competencies; and a belief in mastery learning (Warmuth, 1980). Competency-based education may be seen as learner centred, real life centred, flexible, and with the standards clearly articulated (Parnell, 1978).

Oleson (1979) views competency-based education as a worthwhile model for professional education because the curriculum is derived from an analysis of the professional role and an attempt is then made to measure and certify student progress on the basis of demonstrated performance in that role. This process assists in bridging the ever present gap between education and practice. The use of competency-based education in nursing, both for continuing education and post-graduate programs, allows the learners to become self-directed in identifying their individual learning needs and planning to meet these needs (del Bueno, 1978; Warmuth, 1980). This self-direction assists in meeting individual learning needs and learning styles and creates an efficient, effective, and satisfying program (del Bueno, Barker, and Christmyer, 1981; Boyer, 1981). It also assists in preparing the practitioner for lifelong learning which is necessary to ensure continuing competence (Tough, 1974). In competency-based programs the application of knowledge is emphasized while traditional programs emphasize knowledge acquisition only (Boyer, 1981). Thus it is an effective way to ensure that nurses are competent in the tasks they must perform (del Bueno, 1975).

A major promise of this approach is that it allows curriculum planners and instructional designers to reformulate parts of the program, based on new knowledge, technology, and research without having to restructure the whole curriculum (Houston, 1973). Educational programs in oncology nursing must prepare nurses to deal with new challenges and revision of programs should be possible with minimum trouble (Given, 1980).

IDENTIFICATION OF COMPETENCIES

The initial step in initiating a competency-based program is the identification of required competencies. Occupational analysis is a common approach to determining competency lists (Houston, 1973). This can be defined as "the process of analysing or breaking down an occupation into the worthy performances of tasks performed by workers on the job" (Blank, 1982, p. 67). An occupational analysis is an audit and inventory, in which knowledge, skills, and attitudes are identified and isolated with a view to ultimately synthesizing them into an hierarchical organization (Davies, 1973). The validity of course design decisions is directly related to the care and accuracy with which the occupational analysis is done (Butler, 1972).

Several ways of identifying competencies are discussed in the literature. They involve observation of workers on the job and recording tasks actually performed; compiling a tentative listing of tasks from knowledge of the occupation and having workers in the occupation verify them; meeting with a group of workers from the occupation and together identifying tasks performed (Blank, 1982; Burns and Klingsted, 1973; Butler, 1972; Davies, 1973; Houston, 1973). The most common method is to use an instructional advisory committee drawn from the occupation for which training is being planned (Pucel and Knaak, 1975). There is a growing trend to share validated competencies between schools, colleges, or within a multi-state consortium (Adams, 1974; Knaak, 1977).

The DACUM (Developing A Curriculum) model, outlined by Adams (1974), is one model of developing a competency-based curriculum. The DACUM method appears to be particularly useful in occupations where changes are rapidly occurring due to the ease of altering the curriculum. This method also stresses learner self-direction, thus assisting individuals in becoming self-directed learners, a necessity in order to keep up with advances in knowledge and technology. To identify the skills necessary for an occupation, Adams suggests using a committee of individuals who are expert in the occupation, good at oral communication, and able to participate in committee work and share ideas. Deane and Manuel (1977) have developed a process (CAP) that is based on the DACUM model. The CAP system consists of five phases:

1. The development of a Competency Analysis Profile (CAP)
2. Validation of the profile
3. Development of learning objectives
4. Preparation of learning materials
5. Establishment and management of delivery systems.

In Phase One, the necessary skills and competencies are identified by a committee which should be limited to between eight and twelve individuals. This appears to be an effective size for group work (Yalom, 1975). A skilled group leader is required to coordinate the work of the committee. The second phase involves the distribution of the CAP to a larger cross section of practitioners. The purpose of this phase is to determine to what extent practitioners in an occupation agree with the skills and knowledge identified. Practitioners may also be asked to indicate which competencies should form a core curriculum and which may be used for different levels of practice. It is also useful to identify where practitioners acquired the identified skills and knowledge in order to ascertain those that have been gained in preservice programs (Dawson, 1979). Manuel and Deane (1976) view this validation process as essential in order to "expose the profile to a larger sample of the occupation for its review and criticism. A small group, no matter how carefully chosen, cannot be expected to have total insight into an entire occupation" (p. 5). The validation process may also identify subgroups of an occupation that may have different learning needs (Blank, 1982), as well as competencies which may not be seen as essential during the initial phase of employment but which can be developed during the course of employment (Manuel and Deane, 1976). This is considered to be of importance at a time when attempts are being made to encourage nurses to remain at the bedside rather than follow the traditional career advancement tracks into teaching and administration (Sovie, 1982). The validation process should be repeated at regular intervals to revalidate the performance specifications (Weatherman and Dobbert, 1975).

The remaining three phases complete the process of developing a flexible competency-based program but are not described here since their implementation was beyond the scope of the study.

SUMMARY

The literature indicates that there is a need to develop programs to prepare oncology nurses. These programs should recognize the individuality of the learners, encourage self direction, and ensure that the learners are able to apply the knowledge and skills they have acquired at a standard acceptable to the employer and the public. They must also be cost effective.

One approach to developing such programs is competency-based education which is based on an occupational analysis and the identification of the competencies necessary to practice in a particular profession.

CHAPTER III

PHASE I ACTIVITIES

This is a descriptive study designed to identify the competencies required by nurses who work in the specialty of oncology and to identify where oncology nurses acquire the competencies which they possess, whether in preservice programs, post-graduate programs, or by on-the-job training. It is further designed to identify those competencies which oncology nurses perceive as essential to adequate performance on the job and those competencies which they perceive may be developed during their employment.

The methodology was adapted from the Competency Analysis Profile system (Manuel and Deane, 1976). As noted before, this model is designed to develop curricula for educational programs and consists of five phases: development of the basic competency analysis profile (CAP); validation of the CAP; preparation of objectives; preparation of learning materials; establishment and management of delivery systems. For the purpose of this study, only the initial two phases were used:

PHASE I: Development of a Profile of Competencies of Oncology Nursing

PHASE II: Validation of the Profile.

The methodology was similar to that used by Dawson (1979) to establish a competency profile of occupational health nursing. This methodology is particularly useful in areas where there are rapidly changing educational requirements due to knowledge and technological advances.

DEVELOPMENT OF PROFILE

The purpose of the initial phase of the study was to develop a list of the competencies which are perceived as necessary for nurses in oncology and, from this list, to develop a profile of competencies of oncology nursing.

The initial identification of competencies was carried out by a group of nurses, who were perceived to represent all areas of oncology nursing, with the assistance of a group leader. This took place during a three-day work session.

Selection of Workshop Participants

Criteria were established to assure that a cross-section of nurses was selected. The criteria for selection were as follows:

1. Each individual was a full-time employee of the Alberta Cancer Board at the Cross Cancer Institute.

2. Each individual was perceived to be able to identify the necessary knowledge, skills, and attitudes required to work in oncology nursing.

3. Each individual was also perceived to be able to verbalize clearly the knowledge, skills, and attitudes required to work in oncology nursing.

4. Inclusion of nurses from different units of the Cross Cancer Institute, in order to involve nurses associated with different subspecialties, e.g. radiation oncology, day care unit, clinical research, inpatient units, outpatient unit. It was thought that unique skills may be used in each unit.

5. Each individual was perceived by the individuals selecting them to be capable of functioning well in team situations without dominating or being dominated.

6. Group members were chosen to reflect the diversity of basic nursing education programs with representatives from hospital, college, and university-based programs.

7. Members had to have varying years of experience in their present and/or other oncology nursing positions. Nurses with more years of experience were expected to have broad and diverse knowledge to bring to the task. Those who had recently graduated would bring a fresher perspective of competencies not acquired in their preservice programs but necessary in oncology nursing.

8. Members in a supervisory position were excluded from the group in order to ensure that group members were not inhibited from voicing their opinions (Adams, 1975).

Using the above criteria, a group of eight nurses was selected to form the work group to participate in Phase I. The individuals were selected by the Project Coordinator in conjunction with the Director of Nursing and the Education Coordinator. Two further nurses were selected in case the original eight were unable to participate, due to lack of interest or inability to get time off work. However, with the support of the Director of Nursing, and a physician who employed one of the nurses, the eight nurses originally selected were all free to participate. Furthermore, all of the nurses themselves were willing to participate.

The individuals selected represented the following areas: inpatient areas (4); day care unit (1); outpatient department (1); research (1), and education (1). Five of the participants had worked in more than one area of the Institute and therefore brought with them a broader perspective of the occupation. The length of employment ranged from less than one year to more than ten years.

The participants had varying educational backgrounds. Six had graduated from a hospital diploma program; one had graduated from a college-based diploma program; one had graduated with a Baccalaureate degree in nursing. One participant had completed a post basic Baccalaureate degree in nursing; two nurses had completed some course work towards a post basic Baccalaureate degree in nursing, and one nurse had course work towards a Master's degree in nursing. One participant had a specialist certificate in Enterostomal Therapy.

Selection of Group Leader

As a process of modified brain-storming was used to develop the profile, a skilled group leader was required to assist the participants in identifying, verbalizing, and clarifying the competencies.

The following criteria were utilized in selecting the group leader. The group leader would be:

1. skilled in group dynamics and therefore able to guide the group to complete the task in the allotted time;

2. familiar with the Competency Analysis Profile system and believe in the reliability of the process as a means of completing an occupational analysis;

3. able to assist the group in defining and clarifying competencies;

4. able to stimulate different ways of thinking to ensure development of a complete profile.

The group leader chosen was a nurse and an educational psychologist, who had experience in group facilitation. She was not perceived as knowledgeable in oncology nursing. Adams (1975) suggests that the group leader should not have extensive experience in the occupation being analyzed as this might limit her/his objectivity and make it difficult for her not to interfere with the group process. However, it was found that it was helpful to have a group leader who was familiar with the profession. It is difficult to see how otherwise she could have assisted in clarifying the specific competencies.

Preparation for Work Sessions

Dates for the three-day work session were set. Letters of confirmation were sent to all participants (Appendix A) and were followed up with personal discussion between the project coordinator and participants. This served to answer any questions and reconfirm interest in participating for the total three-day period.

A room was booked to allow for comfort and privacy. Seating was arranged to ensure that group members could have visual contact with each other and yet be able to concentrate on the wall upon which the competency profile would be developed.

Supplies utilized were assembled. These were as follows:

1. 20 cm x 10 cm file cards on which to list the major areas of competence.

2. 12.5 cm x 7.5 cm file cards on which to list specific competency statements included in each major area of competence.

3. Felt tipped pens.

4. Masking tape.

5. A package for each participant including:

   a) a copy of the proposal for the project for information,
   b) list of action verbs,
   c) Process and Outcome Standards of the Department of Nursing, Cross Cancer Institute (1981), (Appendix B).

6. Tape recorder and tapes to record the proceedings. Recording would facilitate the project coordinator in critiquing the process as a method of occupational analysis.

The project coordinator and the group leader met prior to the workshop to clarify each other's role and to ensure success of the workshop through preplanning.

It was determined that during the workshop the project coordinator was responsible for

1. providing an orientation to the occupational analysis process and specifically to the Competency Analysis Profile system;

2. establishing the parameters within which the competencies would be identified; and

3. acting as clerical assistant during the process. As clerical assistant she was responsible for writing identified competency statements on file cards for the profile. She would not be involved in the process of identifying competencies.

The group leader was made responsible for facilitating the group process by motivating the participants to brain-storm and identify competencies during the three-day period.

Procedure of Identifying Competencies

On the morning of the first day the project coordinator welcomed the group and introduced each member to the group leader. The participants already knew each other within the work setting. An anticipated schedule of the three days was provided.

The project coordinator provided an orientation to the process of identifying competencies and developing a competency analysis profile. Samples of profiles that had been previously developed were used to demonstrate the process and the anticipated end product. The parameters within which the competencies would be developed were clarified. They were as follows:

1. Competencies should be appropriate for a Registered Nurse, i.e., within her scope of practice as outlined by the Registered Nurse Act.

2. Competencies identified should be over and above basic skills expected of a Registered Nurse.

3. Competencies should be both present and future oriented.

4. Competencies should assist in operationalizing the philosophy of nursing that has been adopted by the Cross Cancer Institute (Appendix C).

5. Although the competencies identified would be described as clusters of knowledge, skills, and attitudes, it was recognized that the values of the participating nurses would be reflected in the selection of the competencies.

6. Competencies should be such as to enable nurses to achieve the Standards of Nursing as defined by the Department of Nursing, Cross Cancer Institute.

As all of the participants worked within the Institute it was anticipated that they would be familiar with these Standards. Although a copy of the Standards was provided to the participants, it was noted that they were not referred to during the sessions. It is not known if participants reviewed them prior to the workshop.

After the orientation the project coordinator adopted the role of clerical assistant and the group leader took control of the process.

During the remainder of the first morning the group identified major areas or categories of competence under which specific competency statements were to be listed. Each category was printed on a 20 cm x 10 cm file card. These were listed vertically on the wall facing the group.

Initially eighteen such categories of competence were listed but after discussion the group chose to delete two categories - communication and management. The rationale behind this decision was that both these categories were important in any area of nursing and were in no way unique in the area of oncology. Concern was raised that communication was of particular importance in caring for the cancer patient but it was felt that this could be demonstrated within the other categories.

At a later stage during the session, the group made the decision to combine two categories. Psychological care and spiritual care were combined as it was discovered that competencies listed within these categories were similar or overlapping. Administration of antineoplastic agents and administrations of hormones and immunotherapy were combined for similar reasons.

One further category, sexuality, was added on the third day of the process. Two of the group members suggested that this area could not be combined with psychological and spiritual care. After confirming that competencies could be listed for this category which were not listed elsewhere, its addition was accepted. The final number of categories listed was fifteen (Table 1). Each category was labelled with a designation letter such as "A", "B", "C" for reference purposes.

Specific competency statements for each area were then identified by the group. Categories upon which to work were mutually agreed upon by the group. The group leader suggested that the group initially select a category which the participants perceived would be easy to complete; this would assist them in clarifying the task, give them a sense of accomplishment, and provide them with a prototype for the others.

TABLE 1

Major Categories of Competence Identified by Workshop Participants

---

A. Health and Physical Assessment
B. Intravenous Therapy
C. Antineoplastic Agents, Hormones and Immunotherapy
D. Radiation Therapy
E. Invasive Diagnostic and Therapeutic Procedures
F. Emergency Care
G. Research
H. Patient and Family Education
I. Rehabilitation and Follow-up
J. Pain Management
K. Psychological and Spiritual Care
L. Death and Dying
M. Teaching of Peers and Colleagues
N. Sexuality

The individual competency statements were listed on 12.5 cm x 7.5 cm file cards which were arranged horizontally beside the appropriate major category listing. The group was encouraged to specify all the skills in one major category before moving on to the next. However, the changing and refining of major categories and the specific competencies occurred continuously throughout the process.

Specific competency statements could be included by any single member of the group without agreement of the other participants. Through skilled group facilitation, the free exchange of ideas was soon evident, with the participants encouraging each other to express their ideas and voice their concerns about specific statements.

The group leader was present only to facilitate the process and she could not alter, remove from, or add to the profile. She facilitated the process by assisting individual members in clarifying statements and putting forward their individual view points. She also ensured that all competencies were stated in behavioural terms. She further ensured that minimal pressure was placed on individual members to concur with majority decisions.

Once the group had completed the identification of the specific competency statements for each major category, a review of the completed profile was carried out. The competency statements were reviewed for clarity and restructured if necessary. The major category statements were reviewed to ensure that they reflected the specific competencies listed beside them. As previously reported, categories with limited numbers of similar competencies were combined. The competencies were sequenced by mutual agreement of the group, who felt more comfortable to have them in a logical order, although not necessarily feeling that a competency was prerequisite for the one following it. Each competency was marked with the reference letter of the category to which it belonged and a number indicating its place in the horizontal listing, such as "A2", "A3" (Table 2).

The completed competency analysis profile of oncology nursing, consisting of fifteen major categories and 153 specific competency statements was typed on to paper maintaining the same format as that to be used in Phase II of the study (Appendix D). A list of each major category with specific competency statements is outlined in Table 3.

TABLE 2. Example of Format for Competency Analysis Profile (For explanation, see page 48)

A. HEALTH AND PHYSICAL ASSESSMENT

A.1 Practise assessment skills related to treatment modality and disease process			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

A.2 Communicate observations to appropriate health care providers			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

A.3 Teach self-assessment skills to others			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

A.4 Identify teaching needs in the area of prevention and detection			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

A.5 Participate in screening programs			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

A.6 Participate in community awareness programs			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Add extra Physical competencies if wished.

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

TABLE 3

Major Competency Categories and Specific Competency Statements

A. HEALTH AND PHYSICAL ASSESSMENT		
Practise assessment skills related to treatment modality and disease process	Communicate observations to appropriate health care providers	Teach self-assessment skills to others
Identify teaching needs in the area of prevention and detection	Participate in screening programs	Participate in community awareness programs
B. INTRAVENOUS THERAPY		
Follow recommended procedures for infection control	Teach patient about intravenous and central lines	Establish intravenous with scalp vein needle
Establish intravenous infusion with intracath	Maintain intravenous infusion	Operate intravenous pumps and controllers
Observe mental and physical condition of patient on intravenous therapy	Care for central lines	Draw blood from central lines or peripheral intravenous device
Maintain arterial lines	Administer blood products	Administer medications intravenously
Administer analgesics intravenously	Administer and monitor total parenteral nutrition	Identify adverse reactions and initiate appropriate action
Establish and maintain heparin locks	Discontinue I.V.	

(continued)

TABLE 3

(Continued)

Major Competency Categories and Specific Competency Statements

C. ANTINEOPLASTIC AGENTS, HORMONES AND IMMUNOTHERAPY		
Teach patient and family	Provide psychological support	Follow protocol for administration
Ensure that appropriate tests are checked prior to administration	Monitor patient before, during and after administration	Provide nursing measures to lessen side effects
Practice safety measures in preparation and administration	Prepare agents for administration	Dispose of wastage appropriately
Administer antineoplastics, hormones and immunotherapeutic agents	Administer antineoplastics by bolus when appropriate	Recognize and initiate appropriate treatment for extravasation
Recognize side effects	Initiate appropriate treatment for side effects	Monitor patient's nutritional status
D. RADIATION THERAPY		
Teach patient and family	Provide psychological support	Follow protocol
Ensure that appropriate tests are checked	Provide nursing measures to lessen side effects	Administer radio sensitizers and radio-protectors

(continued)

TABLE 3

(Continued)

Major Competency Categories and Specific Competency Statements

---

D. RADIATION THERAPY (continued)

- Practice radiation safety measures
- Operate after-loading equipment
- Monitor patient receiving external radiation therapy
- Monitor patient receiving internal radiation therapy
- Recognize side effects
- Initiate appropriate treatment for side effects
- Monitor nutritional status

E. INVASIVE DIAGNOSTIC AND THERAPEUTIC PROCEDURES

- Teach specific procedure to patient
- Provide psychological support
- Ensure informed consent is obtained
- Assemble necessary equipment
- Assist with specific procedure
- Perform procedures as qualified
- Obtain specimens
- Observe for procedure complications
- Take appropriate action for procedure complications
- Provide nursing care related to procedure

(continued)

TABLE 3

(Continued)

Major Competency Categories and Specific Competency Statements

F. EMERGENCY CARE		
Assess situation	Summon assistance	Perform basic life support
Use emergency equipment	Administer appropriate measures and drugs	Provide psychological support
Identify signs and symptoms of common oncological emergencies	Initiate appropriate nursing care for common oncological emergencies	Retain control of situation and self
G. RESEARCH		
Identify research question	Use channels for research review	Conduct research
Evaluate research findings	Disseminate research findings	Utilize appropriate research findings in clinical practice
Develop personal views about the ethics of research	Volunteer as a subject in research when appropriate	Ensure informed consent is obtained
Follow research protocols	Respond with discretion to questions about unconventional treatments	Act as a patient advocate
Question research practices	Assist in data collection	

(continued)

TABLE 3

(Continued)

Major Competency Categories and Specific Competency Statements

H. PATIENT AND FAMILY EDUCATION		
Utilize principles of teaching and learning	Assess learning needs	Assess learner characteristics
Assess learning environment	Formulate learning objectives	Design teaching plan
Implement teaching plan	Evaluate attainment of learning objectives	Assist in development of teaching materials
Provide access to resource information		
I. REHABILITATION AND FOLLOW UP		
Identify patient and family needs	Assist patient to adjust to a modified life style	Provide information about available resources
Make referrals to appropriate agencies	Ensure access to necessary aids for modified life styles	Teach correct use of aids
Ensure appropriate follow up	Evaluate rehabilitation and follow up intervention	

(continued)

TABLE 3

(Continued)

Major Competency Categories and Specific Competency Statements

J. PAIN MANAGEMENT		
Respond to verbal and non-verbal indications of pain	Assess pain	Utilize current principles of pain management
Administer drugs	Administer nitrous oxide	Utilize non-invasive techniques
Ensure that pain chart is maintained	Evaluate effect of drugs and non-invasive techniques	Monitor patient for complications of medications
Initiate doses of analgesics as ordered	Provide physical comfort	Provide psychological support
Teach patient and family		
K. PSYCHOLOGICAL AND SPIRITUAL CARE		
Develop personal supportive skills	Establish therapeutic relationship	Provide a supportive environment
Assess spiritual and psychological needs	Demonstrate acceptance of individual spiritual beliefs	Identify personal spiritual beliefs
Stimulate and encourage family communication	Listen actively	Interpret body language

(continued)

TABLE 3

(Continued)

Major Competency Categories and Specific Competency Statements

K.	PSYCHOLOGICAL AND SPIRITUAL CARE (continued)		
	Empathize with patient and significant others	Assist in problem solving	Make appropriate referrals
L.	DEATH AND DYING		
	Identify and accept personal views toward death	Identify needs of dying patient and significant others	Assess needs and apply symptom control measures
	Provide physical comfort measures	Provide psychological support	Make referrals for identified needs
	Participate in bereavement follow up	Provide emotional support to colleagues	
M.	TEACHING OF PEERS AND COLLEAGUES		
	Assume responsibility for own learning	Act as a role model	Use library and resource material
	Act as a preceptor for new staff	Seek information from other health care providers	Collaborate with peers and other health care providers
	Assist in planning of workshops and seminars	Present at nursing rounds and other teaching programs	Report on conferences attended

(continued)

TABLE 3

(Continued)

Major Competency Categories and Specific Competency Statements

M. TEACHING OF PEERS AND COLLEAGUES (continued)		
Contribute to nursing newsletter and other publications	Develop teaching resource material	
N. SEXUALITY		
Examine and accept own beliefs and attitudes toward sexuality	Identify limitations due to disease or treatment	Demonstrate acceptance of changes in patient's body image and function
Assist patient in verbalizing concerns	Encourage communication between patient and significant others	Provide psychological support
Inform patient of available aids and resources		

CHAPTER IV

PHASE II ACTIVITIES

The purpose of Phase II, as outlined by the CAP system, is to validate the profile by "exposing the profile to a larger sample of the occupation for its review and criticism" (Manuel and Deane, 1976). For the purposes of the study, the second phase was designed to answer five questions:

1. To what extent did nurses working within the Cross Cancer Institute perceive the competencies listed to be those required to work as a nurse within an oncology setting?

2. Were the identified competencies acquired during preservice educational programs, on the job (including staff development programs), or through advanced training?

3. Which of the required competencies were identified as entry competencies and which were identified as developmental competencies?

4. Which of the required competencies were not being used due to lack of knowledge?

5. Were there competencies which were unique to specific areas within a comprehensive cancer centre?

DEVELOPMENT OF QUESTIONNAIRE

In order to carry out this survey, the original profile was reconstructed into a set of tables. Each table represented a major category and was labelled in the upper left hand corner with the name and the reference letter of the category. Each specific competency statement was placed in a box format and labelled with the category reference letter and a specific reference number so that each competency was listed sequentially within its own category. In some cases, due to the number of competencies within a category, it was necessary to utilize more than one sheet for a single category. In this case, each sheet was labelled with the category name and reference letter. Extra empty boxes were provided so that additional skills could be added by the validators if they desired. A sheet of empty boxes was provided at the end of the profile so that additional skills which might not belong in any specific category could be added.

Explanation of Box Format

A box format was used to facilitate completion of the questionnaire. As stated, each specific competency was printed within a box. Space was left beneath each competency statement for responses to the questions posed as shown in Figure 1. Printed guidelines were provided to assist respondents in completing the questionnaire (Appendix E).

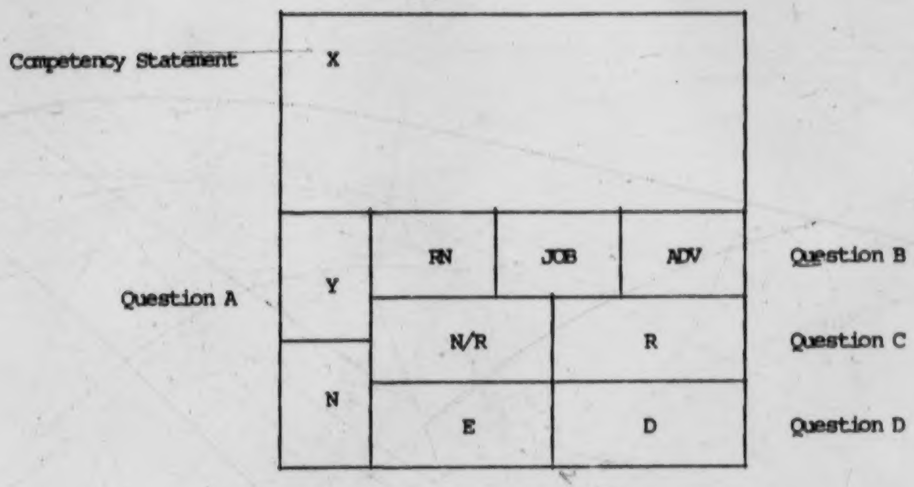

FIGURE 1. Box Format Used to Facilitate Questionnaire Completion

Respondents were asked to indicate whether or not they used the competency listed in each box by circling Y (Yes) or N (No).

If the respondent circled Y, she was then requested to circle the response which best described where she had acquired the skill: in her preservice educational program (RN); on the job, including staff development programs (JOB); or in an advanced educational program beyond her preservice educational program (ADV). An advanced educational program could have been an advanced certificate program, a credit course, workshop or seminars. Each respondent was further asked to identify whether the competency was considered essential for her to perform her job, by circling E (entry); or D (developmental) for one which she could gain over time during her employment.

If the respondent did not use the competency, she was asked to circle N (No). The respondent was then requested to indicate whether she perceived this competency to be relevant to her job but one for which further training was required (R), or one which was not relevant by circling N/R. Again, if the competency was perceived as relevant, the respondent was asked to indicate whether she considered it to be entry (E) or developmental (D).

Respondents were requested to add additional competencies which they perceived to be missing from the profile. They were also encouraged to write comments about the procedure.

Demographic Information

Personal data were requested about the respondents (see Appendix F). Data included:

a) current area of work within the Institute;
b) full-time or part-time status;
c) length of time in present position;
d) length of time in oncology nursing;
e) type of basic nursing education program;
f) education pursued beyond basic nursing education;
g) year of graduation.

It was anticipated that differences might be discovered in competencies considered relevant to practice depending upon the area of work. If this were the fact, programs could be planned accordingly to avoid unnecessary content being given. It was also anticipated that individual respondents may have different perceptions of where they had gained a competency which might be related to differences in basic educational programs.

Pilot Study

The profile was used in a pilot study involving five employees of of the Cross Cancer Institute: two staff nurses, one resource nurse, the infection control nurse, and the Assistant Director of Nursing. Results of the pilot study led to minor revisions in wording of the directions and construction of the box format in order to further clarify the procedure.

VALIDATION PROCESS

A letter requesting participation in the validation process (Appendix G), along with directions for completing the profile and the profile itself, was distributed to 112 Registered Nurses as identified by the personnel records of the Department of Nursing, Cross Cancer Institute. This did not include Registered Nurses working in the Admission Department or Patient Support Services. An addressed envelope for return of the completed questionnaire was enclosed.

Three weeks after the initial distribution, a written reminder was sent to participants in an attempt to receive an increased number of returns (Appendix H).

Of the 112 profiles distributed, 62 were completed and returned. Eight were returned unopened as the nurses had either left employment of the Institute or were employed on a casual basis and had not been working during the period of time when the questionnaire had been circulated. Four of the completed profiles had been completed incorrectly and therefore could not be used. The two profiles returned from the nurses working in the Radiation Therapy clinics were incomplete and indicated that they perceived their role to be only one of assisting the physicians in monitoring patients receiving Radiation Therapy. As they indicated no independent nursing role, they were not included in the data analysis. Thus, 56 profiles were used in the analysis of the validation process. This is 50% of the initial number circulated.

DATA ANALYSIS - PHASE II

Demographic Characteristics

Of the 56 respondents, 34 worked on the inpatient units, 9 in the outpatient department, 4 in the day care unit and 9 were employed as nurses in clinical research. Thirty-seven were full-time employees and 19 were part-time employees. Eighteen respondents had been in their present jobs for less than one year, 29 for one to four years, 4 for five to nine years and 5 for ten years. Educational preparation of the respondents is summarized in Table 4.

TABLE 4

Educational Preparation of Respondents in Relation to Area of Employment

Area of Employment	Hospital Diploma Graduate	College Diploma Graduate	Baccalaureate Degree in Nursing	Post Diploma B.Sc.N.	B.A.	Course Work Towards B.Sc.N.
Inpatient Unit	23	3	8	1	1	3
Outpatient Department	6	3	0	0	0	4
Day Care Unit	0	4	0	0	0	1
Research	5	2	2		1	4

Five respondents graduated between 1951-1960, 11 graduated between 1961-1970, 23 between 1971-1980 and 17 respondents have graduated since 1980. All in the latter group were employed on the inpatient units.

Relevance of Specific Competency Statements

The perceived relevance of the specific competencies was determined by the response to the following two questions:

1. To what extent do the nurses working within the Cross Cancer Institute perceive the competencies listed to be those required to work as a nurse within an oncology setting?

2. Were there competencies which were unique to specific areas within a comprehensive cancer centre?

This allows for a clearer explanation as to the perceived relevance of the specific competencies.

The perceived relevance of each competency was tabulated by frequency count and converted into percentages. All percentages are rounded to the nearest whole number. The percentage represents the combined responses of those utilizing the competency (Y) and those who perceived it as relevant to their practice but did not use it due to a lack of educational preparation in the competency (R). The results are presented in tabular form to allow comparison of the perceived relevance in different work areas.

Category A: Health and Physical Assessment

Table 5 demonstrates that a large percentage of the respondents identified the first four competencies in Category A - Health and Physical Assessment as relevant to their practice. However competencies A.5, "Participate in screening programs", and A.6, "Participate in community awareness programs", are viewed as irrelevant by 64% and 55% of the respondents respectively. These statements might be seen to reflect professional expectations rather than competencies relevant to functioning on the job. As can be seen in Table 5, respondents from all areas had similar perceptions about these two competencies.

Category B: Intravenous Therapy

As reported in Table 6, there is generally a high level of agreement among all nurses on the relevance of the competencies in this category. Competency B.10, "Maintain arterial lines," and competency B.14, "Administer and monitor total parenteral nutrition," have lower percentage agreement but as can be seen from the table, these competencies are used minimally or not at all by the outpatient or research nurses than by nurses in the other clinical areas. Competencies indicated in Table 6 by an asterisk (*) can be seen to be used considerably less by outpatient nurses or research nurses. These competencies are ones which would primarily be used on patients in the inpatient areas and would be seen rarely, if at all, in the outpatient areas where both these groups of individuals do the majority of their work.

TABLE 5

Perceived Relevance by Area of Employment

Category A: Health and Physical Assessment

Abbreviated Competency Statement	Percentage of Respondents Who Perceived Skills as Relevant				
	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
A.1 Assessment skills	96	100	78	100	100
A.2 Communicate observations	98	97	100	100	100
A.3 Teach self-assessment	80	76	78	100	89
A.4 Prevention and detection	87	91	89	100	78
A.5 Screening programs	36	44	33	25	11
A.6 Community awareness	45	47	44	50	33

TABLE 6

Perceived Relevance by Area of Employment

Category B: Intravenous Therapy

Abbreviated Competency Statement	Percentage of Respondents Who Perceived Skills as Relevant				
	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
B. 1 Infection control	96	100	100	100	78
B. 2 Teach about intravenous	91	97	78	100	78
B. 3 Establish with scalpvein	84	82	89	100	78
B. 4 Establish with intracath	82	94	56*	100	56*
B. 5 Maintain intravenous infusion	96	100	100	100	78
B. 6 Operate pumps and controllers	87	97	89	100	44*
B. 7 Observe condition of patient	98	100	100	100	89
B. 8 Care for central lines	84	100	89	100	11*
B. 9 Draw blood from devices	93	100	89	100	67*
B.10 Maintain arterial lines	71	97	56*	50*	0*
B.11 Administer blood products	80	100	67*	100	11*
B.12 Administer medications	96	100	100	100	78
B.13 Administer analgesics	80	100	56*	100	22*

(continued)

TABLE 6

(Continued)

Perceived Relevance by Area of Employment

Category B: Intravenous Therapy

Abbreviated Competency Statement	Percentage of Respondents Who Perceived Skills as Relevant				
	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
B.14 Administer total parenteral nutrition	71	94	44*	100	0*
B.15 Identify adverse reactions	98	100	100	100	89
B.16 Establish heparin locks	89	97	67*	100	78
B.17 Discontinue intravenous	98	100	100	100	89

* Competencies which have a significantly lower reported relevance by specific areas.

Category C: Antineoplastic Agents, Hormones and Immunotherapy

As reported in Table 7, once more high agreement is indicated on the relevance of these competencies which cover one of the major areas of responsibility for nurses caring for cancer patients. The lower perceived relevance of C.8, "Prepare agents for administration," is explained by the fact that these agents are now prepared by pharmacists in controlled conditions. However, it is still necessary for nurses to know how to prepare the agents in order to be able to protect themselves and the environment in the event they have to carry out this procedure.

Category D: Radiation Therapy

Table 8 shows that there is some difference in perception, among nurses in various clinical areas, on the relevance of several of the skills in this area, namely D.6, "Administer radio sensitizers and radioprotectors," D.7, "Practice radiation safety measures," D.8, "Operate after-loading equipment," D.9, "Monitor patient receiving external radiation therapy," and D.10, "Monitor patient receiving internal radiation therapy." One explanation is that D.6 is related to a specific population of patients which might not be cared for by the majority of the staff while D.8 relates to a specific type of internal radiation therapy which takes place in only one area of the Institute. Table 8 indicates that the other three competencies mentioned are perceived to be highly relevant in the inpatient areas while not so relevant by the outpatient department nurses and the research nurses. Although nurses working in these areas may not be involved in monitoring patients, it would appear to be important for all nurses within a cancer agency to practice radiation safety.

TABLE 7

Perceived Relevance by Area of Employment

Category C: Antineoplastic Agents, Hormones and Immunotherapy

Abbreviated Competency Statement	Percentage of Respondents Who Perceived Skills as Relevant				
	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
C. 1 Teach patient and family	100	100	100	100	100
C. 2 Provide psychological support	100	100	100	100	100
C. 3 Follow protocol for administration	100	100	100	100	100
C. 4 Check appropriate tests	98	97	100	100	100
C. 5 Monitor patient	100	100	100	100	100
C. 6 Provide nursing for side effects	98	100	100	100	89
C. 7 Practice safety measures	96	97	100	100	89
C. 8 Prepare agents	73	62	100	100	78
C. 9 Dispose of wastage	96	97	100	100	89
C.10 Administer drugs	96	97	100	100	89
C.11 Administer by bolus	91	94	100	100	67
C.12 Treat for extravasation	95	100	100	100	67
C.13 Recognize side effects	100	100	100	100	100

(continued)

TABLE 7

(Continued)

Perceived Relevance by Area of Employment

Category C: Antineoplastic Agents, Hormones and Immunotherapy

Abbreviated Competency Statement	Percentage of Respondents Who Perceived Skills as Relevant				
	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
C.14 Initiate treatment for side effects	100	100	100	100	100
C.15 Monitor nutritional status	98	97	100	100	100

TABLE 8

Perceived Relevance by Area of Employment

Category D: Radiation Therapy

		Percentage of Respondents Who Perceived Skills as Relevant				
	Abbreviated Competency Statement	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
D. 1	Teach patient and family	95	100	100	100	67
D. 2	Provide psychological support	95	100	100	100	67
D. 3	Follow protocol	91	100	100	100	44
D. 4	Check tests	84	91	89	75	56
D. 5	Provide nursing for side effects	93	97	100	100	56
D. 6	Administer radiosensitizers and protectors	36	41	11	75	22
D. 7	Radiation safety	75	94	56	75	22
D. 8	Operate after-loading equipment	44	41	11	25	0
D. 9	Monitor patient with external radiation therapy	71	82	44	100	44
D.10	Monitor patient receiving internal radiation therapy	64	91	33	25	22
D.11	Recognize side effects	89	97	89	75	67
D.12	Initiate treatment for side effects	88	97	89	75	56
D.13	Monitor nutritional status	88	94	89	75	67

Category E: Diagnostic Procedures

There was generally a high perceived relevance for all the competencies in this category (Table 9). It can be seen that the perceived relevance of this category of skills was slightly lower among the nurses in clinical research. These nurses have independent roles which differ in many ways from the traditional role of the nurse; thus it is not surprising that they do not see themselves as assisting physicians with this kind of activity.

Category F: Emergency Care

As can be seen from Table 10, these competencies are all perceived as highly relevant with only the nurses in clinical research disagreeing, in particular with F.4, "Use emergency equipment," and F.5, "Administer appropriate measures." These activities are, again, more likely to fall into the domain of the nurses in more traditional roles.

Category G: Research

Confirmation of the relevance of the competencies in this classification ranges from 41% to 88%. The data displayed in Table 11 show that the lowest perception of relevance is among the nurses who work in

TABLE 9

Perceived Relevance by Area of Employment

Category E: Invasive Diagnostic and Therapeutic Procedures

Abbreviated Competency Statement		Percentage of Respondents Who Perceived Skills as Relevant				
		Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
E. 1	Teach procedure to patient	98	97	100	100	100
E. 2	Provide psychological support	100	100	100	100	100
E. 3	Obtain informed consent	93	94	100	100	78
E. 4	Assemble necessary equipment	93	97	100	100	67
E. 5	Assist with specific procedure	95	97	100	100	78
E. 6	Perform procedures as qualified	89	94	100	100	67
E. 7	Obtain specimens	96	100	100	100	78
E. 8	Observe for complications	98	100	88	100	89
E. 9	Take appropriate action for complications	98	100	100	100	89
E.10	Provide nursing care related to procedure	98	100	100	100	89

TABLE 10

Perceived Relevance by Area of Employment

Category F: Emergency Care

Abbreviated Competency Statement	Percentage of Respondents Who Perceived Skills as Relevant				
	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
F.1 Assess situation	98	100	100	100	89
F.2 Summon assistance	98	100	100	100	89
F.3 Perform basic life support	98	100	100	100	89
F.4 Use emergency equipment	93	100	100	100	56
F.5 Administer appropriate measures	93	100	100	100	56
F.6 Provide psychological support	96	100	100	100	78
F.7 Identify oncologic emergencies	98	100	100	100	89
F.8 Care for oncologic emergencies	96	100	100	100	78
F.9 Retain control	98	100	100	100	89

TABLE 11

Perceived Relevance by Area of Employment

Category G: Research

Abbreviated Competency Statement	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
	Percentage of Respondents Who Perceived Skills as Relevant				
G. 1 Identify research question	63	47	67	100	100
G. 2 Use channels for research review	48	29	67	100	78
G. 3 Conduct research	48	29	67	100	78
G. 4 Evaluate research findings	41	35	56	0	67
G. 5 Disseminate research findings	41	35	44	50	56
G. 6 Utilize research findings	71	71	78	75	67
G. 7 Develop views about ethics	84	82	89	100	78
G. 8 Volunteer as a subject	71	62	89	100	78
G. 9 Ensure consent is obtained	79	56	67	100	100
G.10 Follow research protocols	84	76	89	100	100
G.11 Inform about unconventional therapy	88	82	89	100	100
G.12 Act as a patient advocate	84	79	78	100	100
G.13 Question research practices	82	74	100	100	89
G.14 Assist in data collection	88	59	67	100	100

the inpatient areas, although there is little firm agreement on the relevance of many of the competencies, even among the nurses in clinical research. One explanation may be that nursing research is in its infancy and these data are perhaps an indication that more groundwork has to be completed before nurses perceive research to be an area that is relevant to their day-to-day work, even within a research-oriented area of practice such as oncology nursing. In areas where the work load is especially high, such as the inpatient areas, research is a low priority. However it is noteworthy that three activities G.7, "Develop personal views about the ethics of research," G.12, "Act as a patient advocate" and G.13, "Question research practices" were not perceived as relevant by 100% of the respondents. As so much research is conducted within a cancer institute and so much of the nursing care is related to the impact of research protocols on the patient, it would appear essential to develop competency in these areas.

Category H: Patient Education

As can be seen in Table 12, agreement on the perceived relevance of these competencies was generally high, with no notable differences between the different workers/work groups.

TABLE 12

Perceived Relevance by Area of Employment

Category H: Patient Education

Abbreviated Competency Statement	Percentage of Respondents Who Perceived Skills as Relevant				
	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
H. 1 Utilize principles of teaching/learning	100	100	100	100	100
H. 2 Assess learning needs	100	100	100	100	100
H. 3 Assess learner	96	94	100	100	100
H. 4 Assess environment	98	97	100	100	100
H. 5 Formulate objectives	95	97	89	100	89
H. 6 Design teaching plan	93	97	78	100	89
H. 7 Implement teaching plan	95	97	78	100	100
H. 8 Evaluate attainment of objectives	95	94	89	100	100
H. 9 Develop teaching materials	96	97	89	100	100
H.10 Access resource information	96	100	100	100	89

Category I: Rehabilitation and Follow-up

Table 13 shows that agreement about the relevancy of the competencies varied from 52% on I.8 to 98% on I.1 in this category. Some of the differences are quite marked. In particular, "Teach correct use of aids" has a high perceived relevance in the inpatient area and a low perceived relevance in the outpatient area; whereas with I.7, "Ensure appropriate follow-up," and I.8, "Evaluate rehabilitation and follow-up intervention," the perceived relevance is reversed. The explanation may be that the inpatient nurses lose contact with their patients after discharge and therefore cannot be responsible for follow-up, whereas this is frequently an important role for those dealing with the ambulatory outpatients.

Category J: Pain Management

As reported in Table 14, there is a high level of agreement on all competencies apart from J.5, "Administer nitrous oxide," and J.7, "Ensure pain chart is maintained." In regard to J.5, Table 14 indicates that apart from the nurses in clinical research, there is a similar perception across all other areas as to its relevance. This might be explained by the fact that the administration of nitrous oxide is a technique that is an adjunctive treatment against pain and it is conjectured that the appropriateness of its use is as yet not clear to all staff. It is possible that further research into its use and further education in its use is necessary before it would be perceived as relevant.

TABLE 13

Perceived Relevance by Area of Employment

Category I: Rehabilitation and Follow-up

Abbreviated Competency Statement	Percentage of Respondents Who Perceived Skills as Relevant				
	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
I.1 Identify patient/family needs	98	100	100	100	89
I.2 Assist adjustment to modified lifestyle	96	94	100	100	100
I.3 Inform about available resources	95	91	100	100	100
I.4 Refer to appropriate agencies	86	79	100	100	89
I.5 Access necessary aids	87	79	100	100	100
I.6 Teach correct use of aids	77	82	40	100	56
I.7 Ensure follow-up	73	59	100	100	89
I.8 Evaluate rehabilitation	52	38	78	100	56

TABLE 14

Perceived Relevance by Area of Employment

Category J: Pain Management

Abbreviated Competency Statement	Percentage of Respondents Who Perceived Skills as Relevant				
	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
J. 1 Respond to indications of pain	100	100	100	100	100
J. 2 Assess pain	98	100	100	100	89
J. 3 Utilize principles of pain management	98	100	100	100	89
J. 4 Administer drugs	93	100	100	100	56
J. 5 Administer nitrous oxide	68	74	78	75	33
J. 6 Utilize non-invasive techniques	95	100	89	100	78
J. 7 Maintain pain chart	79	91	78	75	33
J. 8 Evaluate effect of techniques	96	100	89	100	89
J. 9 Monitor patient for complications	98	100	100	100	89
J.10 Initiate analgesics	93	97	89	100	78
J.11 Provide physical comfort	98	100	100	100	89
J.12 Provide psychological support	100	100	100	100	100
J.13 Teach patient and family	100	100	100	100	100

Competency J.7 is seen as highly relevant in the inpatient area which is to be expected. It is unlikely that nurses in the outpatient or day care area would be using this competency, at least to as great an extent as on the inpatient units.

Category K: Psychological and Spiritual Care

Table 15 shows there is, with only two small exceptions, 100% agreement on the perceived relevance of the competencies in this category. The reason is probably that in our society cancer is seen as an extremely frightening illness which affects not only the patient but his whole family. Institutes which offer care to individuals with cancer, therefore, operate on a philosophy of supportive care, providing a holistic approach to treatment. Many nurses enter this area of practice with a desire to provide this kind of care to their patients. Their unanimity with the competencies in this category reflects this philosophy.

Category L: Death and Dying

Again there is a consensus on the relevance of the competencies in this category (Table 16) except for L.7, "Participate in bereavement follow-up." At this time, it is unlikely that nurses in any of the areas would be involved in this task, although some may perceive that

TABLE 15

Perceived Relevance by Area of Employment

Category K: Psychological and Spiritual Care

Abbreviated Competency Statement		Percentage of Respondents Who Perceived Skills as Relevant				
		Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
K. 1	Develop supportive skills	98	100	100	100	89
K. 2	Establish therapeutic relationship	100	100	100	100	100
K. 3	Provide supportive environment	100	100	100	100	100
K. 4	Assess spiritual and psychological needs	100	100	100	100	100
K. 5	Accept individual beliefs	100	100	100	100	100
K. 6	Identify personal beliefs	94	91	100	100	100
K. 7	Stimulate family communication	100	100	100	100	100
K. 8	Listen actively	100	100	100	100	100
K. 9	Interpret body language	100	100	100	100	100
K.10	Empathize with patient and family	100	100	100	100	100
K.11	Assist in problem solving	100	100	100	100	100
K.12	Make appropriate referrals	100	100	100	100	100

TABLE 16

Perceived Relevance by Area of Employment

Category L: Death and Dying

	Abbreviated Competency Statement	Percentage of Respondents Who Perceived Skills as Relevant				
		Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
L.1	Identify personal views about death	98	97	100	100	100
L.2	Identify needs of dying patient	100	100	100	100	100
L.3	Assess symptom control needs	98	100	100	100	89
L.4	Provide physical comfort	96	100	100	100	78
L.5	Provide psychological support	100	100	100	100	100
L.6	Make referrals	100	100	100	100	100
L.7	Bereavement follow-up	48	41	33	100	67
L.8	Support colleagues	100	100	100	100	100

it would be beneficial to the family and themselves if they were. The bereavement program at the Cross Cancer Institute is coordinated by one nurse, supported by other members of the health care team.

Category M: Teaching of Peers and Colleagues

The perceived relevance of competencies in this category ranges from 64% to 100% (Table 17). The lower perceived relevance of competencies M.7, M.10 and M.11 cannot be attributed to any one particular unit. These tasks are generally the responsibility of nursing instructors who are assisted by staff nurses on a volunteer basis.

Category N: Sexuality

As shown in Table 18, there is almost complete agreement on the relevance of all the competency statements in this category. This is an area which has increased in importance recently as individuals with cancer survive the disease and learn to live with it. It has been the focus of sessions at national and international conferences and the emphasis that has been placed on its importance appears to be reflected in the agreement.

TABLE 17

Perceived Relevance by Area of Employment

Category M: Teaching of Peers and Colleagues

Abbreviated Competency Statement	Percentage of Respondents Who Perceived Skills as Relevant				
	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
M. 1 Assume responsibility for learning	100	100	100	100	100
M. 2 Act as a role model	96	97	89	100	100
M. 3 Use library resources	100	100	100	100	100
M. 4 Act as a preceptor for staff	88	91	78	100	89
M. 5 Seek information from others	100	100	100	100	100
M. 6 Collaborate with peers	100	100	100	100	100
M. 7 Assist with workshops	64	59	56	100	78
M. 8 Present at teaching programs	96	94	100	100	100
M. 9 Report on conferences	79	74	78	100	89
M.10 Contribute to publications	71	76	78	100	78
M.11 Develop resource material	68	59	56	100	100

TABLE 18

Perceived Relevance by Area of Employment

Category N: Sexuality

Abbreviated Competency Statement	Percentage of Respondents Who Perceived Skills as Relevant				
	Total Group	Inpatient Area	Outpatient Department	Day Care Unit	Research
N.1 Examine own beliefs about sexuality	100	97	100	100	100
N.2 Identify limitations	100	100	100	100	100
N.3 Demonstrate acceptance	100	100	100	100	100
N.4 Assist patient in verbalizing concerns	100	100	100	100	100
N.5 Encourage communication	100	100	100	100	100
N.6 Provide psychological support	100	100	100	100	100
N.7 Inform patient of resources	100	97	100	100	100

Additional Competencies

Participants added several competencies to the profile. Several of these appear to be subsumed in competencies already identified. The added competencies and their relationships to the profile are outlined in Table 19.

Summary

Although there was general agreement as to the relevance of the competencies listed in the profile, there was on occasion a low perceived relevance among respondents. In some situations this low perceived relevance was not related to a specific work unit, while in other instances, a competency might be perceived as relevant by respondents who work in some specific areas only.

It would appear, therefore, that to some extent educational programs specific to the area in which nurses will work could be planned to meet the needs of nurses. At this time, employees in the Cross Cancer Institute usually transfer from the inpatient units to the outpatient areas or to clinical research. It appears that additional preparation should occur prior to transfer.

TABLE 19

Specific Competency Statements Added by Respondents and this Relationship to the Competency Profile

Added Competency	Competency in Profile Encompassing Added Statements
Category A: Health and Physical Assessment	
1. Advocate initiation of investigative and treatment modes to health professionals	
Category B: Intravenous Therapy	
1. Monitor fluid and electrolyte balance	
2. Monitor central venous pressure	
3. Addition of several lines at one site	B.5 Maintain intravenous infusion
4. Trouble shoot venous therapy	B.5 Maintain intravenous infusion
5. Start intravenous infusions on children	B.3 Establish intravenous with scalpvein needle B.4 Establish intravenous infusion with intracath
Category G: Research	
1. Identify research needs and assist where applicable	All are subsumed by G.1 Identify research question and G.2 Conduct research
2. Suggest areas to be initiated (to Health Professionals) with documentation of need	
3. Initiate nursing research in area of particular interest or concern	
Category J: Pain	
1. High dose narcotics	Both are subsumed by J.4 Administer drugs and J.10 Initiate doses of analgesics as ordered
2. Intravenous narcotics	
Category M: Teaching of Peers and Colleagues	
1. Act as preceptor to students	
Competencies Without Suggested Category	
1. Dealing with emotional needs of new patient	It would appear these competencies are contained in the statements in Category K: Psychological and Spiritual Care
2. Dealing with patients who come for first visit	
3. Dealing with hostile patients	

Acquisition of Competencies

Data were collected to answer the following question: Were the identified competencies acquired during preservice educational programs, on the job (including staff development programs), or through advanced training?

For each major category and each specific competency within the category, the following frequencies were compared:

1. The number of nurses who acquired the competency during their preservice educational program;

2. The number of nurses who acquired the competency on the job, through work experience or staff development programs;

3. The number of nurses who acquired the competency through advanced training such as credit courses, certificate programs or educational workshops.

These were converted into percentages of the number who perceived the specific skill to be relevant to practice. All percentages were rounded to the nearest whole number. It was hoped, through this process, to be able to identify competencies which were acquired primarily during the preservice educational program. With this knowledge it should be possible to eliminate these competencies from orientation and certification programs.

Category A: Health and Physical Assessment

As can be seen from Table 20, competency A.1, "Practice assessment skills related to treatment modality and disease process," and A.2, "Communicate observations to appropriate health care providers," are both seen to be acquired during the basic program by a high percentage of respondents. A.1, in particular, is a competency which recently has been included in preservice educational programs. Although the updating of nurses who graduated over five years ago is necessary, it is predicted that all new graduates are prepared in these areas. "Teach self assessment skills to others," (A.3) and "Identify teaching needs in the area of prevention and detection," (A.4) are both seen to be relevant to cancer nursing, and, as such, are learned on the job or in workshop settings. The importance of this knowledge will increase as the health community changes its focus from treatment and cure of the disease to self care, prevention, and early detection.

Category B: Intravenous Therapy

The majority of respondents reported having acquired the competencies in this category either on the job or, on occasion, in advanced training. Exceptions to this are: competencies B.1, "Follow recommended procedures for infection control," B.5, "Maintain intravenous infusion," B.7, "Observe mental and physical condition of patient on intravenous therapy," B.11, "Administer blood products,"

TABLE 20

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category A: Health and Physical Assessment

Abbreviated Competency Statement	Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
		RN Program	On the Job	Advanced Training
A.1 Assessment skills	96	65	30	6
A.2 Communicate observations	98	81	16	0
A.3 Teach self-assessment	80	40	44	16
A.4 Prevention and detection	87	32	55	4
A.5 Screening programs	36	5	40	5
A.6 Community awareness	45	24	16	16

[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

TABLE 21

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category B: Intravenous Therapy

Abbreviated Competency Statement		Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
			RN Program	On the Job	Advanced Training
B. 1	Infection control	96	80	20	0
B. 2	Teach about intravenous	91	27	71	2
B. 3	Establish with scalpvein	84	21	74	2
B. 4	Establish with intracath	82	6	80	0
B. 5	Maintain intravenous infusion	96	81	19	0
B. 6	Operate pumps and controllers	87	20	71	0
B. 7	Observe condition of patient	98	75	24	2
B. 8	Care for central lines	84	9	89	2
B. 9	Draw blood from devices	93	2	88	8
B.10	Maintain arterial lines	71	7	85	0
B.11	Administer blood products	80	80	18	0
B.12	Administer medications	96	63	35	2

(continued)

TABLE 21

(continued)

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category B: Intravenous Therapy

Abbreviated Competency Statement	Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
		RN Program	On the Job	Advanced Training
B.13 Administer analgesics	80	47	53	0
B.14 Administer total parenteral nutrition	71	40	60	0
B.15 Identify adverse reactions	98	60	38	2
B.16 Establish heparin locks	89	16	74	2
B.17 Discontinue intravenous	98	85	13	0

[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

B.12, "Administer medications intravenously," and B.17, "Discontinue I.V." These competencies were reported by a high percentage of respondents as being acquired in preservice programs.

The elimination of these specific competencies from the orientation within the Cancer Institute will assist in cutting down the amount of time spent in teaching Intravenous Therapy.

Category C: Antineoplastic Agents, Hormones and Immunotherapy

Apart from competency C.2, "Provide psychological support," and competency C.15, "Monitor nutritional status," there is practically complete agreement that these competencies are acquired on the job or through advanced training. These two competencies are indeed specialized to the practice of oncology nursing and, consequently, are given little attention in a general preservice educational program. Of the respondents, 14% and 13% respectively reported acquiring competency C.11, "Administer antineoplastics by bolus when appropriate," and C.12, "Recognize and initiate appropriate treatment for extravasation," through advanced programs. It is assumed that the individuals responding in this manner view the staff development certification in the Cancer Institute as an advanced program. It is likely that other respondents acquired the competency in this way but indicated that the competency was acquired on the job.

TABLE 22

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category C: Antineoplastic Agents, Hormones and Immunotherapy

Abbreviated Competency Statement		Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
			RN Program	On the Job	Advanced Training
C. 1	Teach patient and family	100	13	85	2
C. 2	Provide psychological support	100	43	54	4
C. 3	Follow protocol for administration	100	2	95	2
C. 4	Check appropriate tests	98	7	89	2
C. 5	Monitor patient	100	5	95	0
C. 6	Provide nursing for side effects	98	16	82	2
C. 7	Practice safety measures	96	5	94	0
C. 8	Prepare agents	73	2	88	2
C. 9	Dispose of wastage	96	0	100	0
C.10	Administer drugs	96	0	100	0
C.11	Administer by bolus	91	0	71	14
C.12	Treat for extravasation	95	0	81	13

(continued)

TABLE 22

(continued)

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category C: Antineoplastic Agents, Hormones and Immunotherapy

Abbreviated Competency Statement	Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
		RN Program	On the Job	Advanced Training
C.13 Recognize side effects	100	5	93	2
C.14 Initiate treatment for side effects	100	4	95	2
C.15 Monitor nutritional status	98	58	42	0

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[1] All percentages rounded to nearest whole figure.
[2] percentage of total sample.
[3] Percentage of those reporting relevance.

Category D: Radiation Therapy

This category of competencies is, once more, specific to the care of the cancer patient. Consequently, there is high level agreement that radiation therapy competencies are acquired on the job.

Category E: Diagnostic and Therapeutic Procedures

Although the majority of respondents perceived these competencies of highly perceived relevance to be acquired in preservice educational programs, over 20% of the respondents perceived them as having been acquired on the job.

Category F: Emergency Care

As can be seen in Table 24, the majority of respondents reported that most competencies had been acquired during preservice educational programs. However, these competencies which apply specifically to the area of oncology nursing, such as F.7, "Identify signs and symptoms of common oncological emergencies," and F.8, "Initiate appropriate nursing care for common oncological emergencies," tend to be acquired on the job. It is speculated in this case that the respondents who reported

TABLE 23

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category D: Radiation Therapy

Abbreviated Competency Statement		Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
			RN Program	On the Job	Advanced Training
D. 1	Teach patient and family	95	2	98	0
D. 2	Provide psychological support	95	32	68	0
D. 3	Follow protocol	91	0	98	2
D. 4	Check tests	84	8	91	0
D. 5	Provide nursing for side effects	93	12	87	2
D. 6	Administer radiosensitizers and protectors	36	0	70	5
D. 7	Radiation safety	75	2	93	0
D. 8	Operate after-loading equipment	44	0	75	6
D. 9	Monitor patient with external radiation therapy	71	3	95	0
D.10	Monitor patient receiving internal radiation therapy	64	0	89	0
D.11	Recognize side effects	89	4	96	0
D.12	Initiate treatment for side effects	88	2	98	0
D.13	Monitor nutritional status	88	35	65	0

[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

TABLE 24

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category E: Invasive Diagnostic and Therapeutic Procedures

Abbreviated Competency Statement		Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
			RN Program	On the Job	Advanced Training
E. 1	Teach procedure to patient	98	56	42	0
E. 2	Provide psychological support	100	70	30	0
E. 3	Obtain informed consent	93	73	27	0
E. 4	Assemble necessary equipment	93	62	37	0
E. 5	Assist with specific procedure	95	55	43	0
E. 6	Perform procedures as qualified	89	52	44	0
E. 7	Obtain specimens	96	74	24	0
E. 8	Observe for complications	98	65	33	0
E. 9	Take appropriate action for complications	98	64	35	0
E.10	Provide nursing care related to procedure	98	75	24	0

[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

TABLE 25

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category F: Emergency Care

Abbreviated Competency Statement	Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
		RN Program	On the Job	Advanced Training
F.1 Assess situation	98	88	11	0
F.2 Summon assistance	98	83	16	0
F.3 Perform basic life support	98	63	26	7
F.4 Use emergency equipment	93	37	51	4
F.5 Administer appropriate measures	93	37	53	2
F.6 Provide psychological support	96	77	21	0
F.7 Identify oncologic emergencies	98	7	88	0
F.8 Care for oncologic emergencies	96	6	92	0
F.9 Retain control	98	61	33	0

[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

that they had acquired the skills during preservice programs may, in fact, have spent some time in the Cancer Institute as students and subsequently returned to the Institute as staff nurses. It is of interest to note that F.4, "Use emergency equipment," and F.5, "Administer appropriate measures and drugs," are viewed by but a small majority as being acquired on the job. These are competencies which apply to all areas of nursing. It is speculated that nurses in their preservice educational programs are rarely given the opportunity to acquire these skills. The situations in which those skills are used are frequently life-threatening and consequently the experienced nurses will take over, allowing the student to be only an observer.

Category G: Research

In this category, where many of the competencies were perceived to be of low relevance, it can be seen (Table 26) that the majority of respondents report having acquired the competency on the job. The data show this to be one area where acquisition of competency can be related to Baccalaureate preparation or, in the case of those who have acquired the competency in advanced training through courses that lead to the B.Sc.N.

It would appear to be difficult for a health care institution to assist individuals in acquiring these competencies by providing in-house staff development programs and certification programs.

TABLE 26

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category G: Research

Abbreviated Competency Statement		Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
			RN Program	On the Job	Advanced Training
G. 1	Identify research question	63	14	49	11
G. 2	Use channels for research review	48	7	44	22
G. 3	Conduct research	48	11	37	19
G. 4	Evaluate research findings	41	17	22	22
G. 5	Disseminate research findings	41	13	35	17
G. 6	Utilize research findings	71	15	50	17
G. 7	Develop views about ethics	84	34	46	11
G. 8	Volunteer as a subject	71	38	50	0
G. 9	Ensure consent is obtained	79	48	43	2
G.10	Follow research protocols	84	11	87	0
G.11	Inform about unconventional therapy	88	12	80	6
G.12	Act as a patient advocate	84	57	40	0
G.13	Question research practices	82	26	61	4
G.14	Assist in data collection	88	26	62	2

[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

Encouraging nurses continually to pursue their Baccalaureate degree and acquire the competencies in this way would appear to be a more reasonable approach to take.

It is suprising that a larger percentage of respondents did not report acquiring G.7, "Develop personal views about the ethics of research," and G.12, "Act as a patient advocate," in preservice educational programs as these two competencies appear to be related to clarifying one's values and beliefs about the role of the nurse. However, perhaps it is impossible to truly clarify and utilize these competencies until one enters a work situation and has to put one's belief system to the test. Patient advocacy and ethical considerations have become of greater concern to health care professionals over the past five to ten years and it may be that individuals who graduated prior to this time gained little insight into these areas in preservice programs.

Category H: Patient Education

As can be seen in Table 27, the majority of respondents reported that they acquired most of the competencies in preservice training. This may be due to the increased interest in consumer involvement in health care and an increased emphasis being placed on this area by schools of nursing. The exceptions are H.9, "Assist in development of teaching materials," and H.10, "Access resource information." Those

TABLE 27

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category H: Patient Education

Abbreviated Competency Statement	Reporting Relevance of Competency[2]	Where Competency Acquired[3] RN Program	On the Job	Advanced Training
H. 1 Utilize principles of teaching/learning	100	77	16	5
H. 2 Assess learning needs	100	73	23	4
H. 3 Assess learner	96	69	20	9
H. 4 Assess environment	98	69	24	5
H. 5 Formulate objectives	95	64	21	9
H. 6 Design teaching plan	93	60	23	12
H. 7 Implement teaching plan	95	62	28	5
H. 8 Evaluate attainment of objectives	95	63	25	9
H. 9 Develop teaching materials	96	41	41	11
H.10 Access resource information	96	41	54	5

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[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

nurses who reported acquisition of the competencies in this category through advanced training were most likely to be pursuing their post-basic Baccalaureate degree in nursing and to have completed the credit course related to this topic. There remains, however, for all but H.1, over 20% who reported having acquired the competencies on the job.

Category I: Rehabilitation and Follow-up

By referring to Table 28, it can be seen that in the case of competencies I.1, "Identify patient and family needs," I.2, "Assist adjustment to modified lifestyle," and I.6, "Teach correct use of aids," there are significant numbers who have acquired the competencies in preservice educational programs. These three competencies appear to differ from the others in the category in that they reflect an individual responsibility or relationship between nurse and patient while the remainder reflect the nurse's referral role or role as a member of the health care team. It would be unusual for student nurses to develop competency in the roles which reflect an independence in practice. As students, they rarely have the opportunity to practise without supervision.

Category J: Pain Management

The majority of respondents reported acquisition of the competencies in this category through preservice educational programs.

TABLE 28

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category I: Rehabilitation and Follow-up

Abbreviated Competency Statement	Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
		RN Program	On the Job	Advanced Training
I.1 Identify patient/family needs	98	58	42	0
I.2 Assist adjustment to modified lifestyle	96	48	52	0
I.3 Inform about available resources	95	28	70	2
I.4 Refer to appropriate agencies	86	25	71	2
I.5 Access necessary aids	87	20	76	0
I.6 Teach correct use of aids	77	44	49	0
I.7 Ensure follow-up	73	17	78	2
I.8 Evaluate rehabilitation	52	17	72	0

[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

TABLE 29

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category J: Pain Management

Abbreviated Competency Statement		Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
			RN Program	On the Job	Advanced Training
J. 1	Respond to indications of pain	100	80	20	0
J. 2	Assess pain	98	78	22	0
J. 3	Utilize principles of pain management	98	40	56	4
J. 4	Administer drugs	93	81	19	0
J. 5	Administer nitrous oxide	68	11	63	7
J. 6	Utilize non-invasive techniques	95	64	26	6
J. 7	Maintain pain chart	79	16	72	0
J. 8	Evaluate effect of techniques	96	63	35	0
J. 9	Monitor patient for complications	98	71	27	0
J.10	Initiate analgesics	93	81	19	0
J.11	Provide physical comfort	98	91	9	0
J.12	Provide psychological support	100	84	16	0
J.13	Teach patient and family	100	75	25	0

[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

Over the past five years, there has been an increase in knowledge about pain control which has resulted in greater attention being paid to this area in preservice educational programs for nurses.

Competencies J.3, "Utilize current principles of pain management," J.5, "Administer nitrous oxide," and J.7, "Maintain pain chart," are perceived by a high percentage of respondents as having been acquired on the job. Category J.3 infers making decisions about strategies to use in dealing with pain. This competency may not be gained until the individual works independently as a registered nurse. Statements J.5 and J.7 refer to procedures which are utilized in this context only within sophisticated cancer centers. It is unlikely that student nurses would have the opportunity to gain these competencies unless they had been working in a cancer institute during their training.

Competency J.5, "Administer nitrous oxide," is perceived by 7% of the respondents as having been acquired in advanced training. This probably refers to a certification program at the Cancer Institute.

Category K: Psychological and Spiritual Care

The majority of respondents reported that the competencies in this category were acquired in preservice educational programs (Table 30). However, it is noted that a higher number of respondents report having acquired the competencies which may be described as individual or

TABLE 30

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category K: Psychological and Spiritual Care

Abbreviated Competency Statement		Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
			RN Program	On the Job	Advanced Training
K. 1	Develop supportive skills	98	49	44	7
K. 2	Establish therapeutic relationship	100	61	38	2
K. 3	Provide supportive environment	100	63	38	0
K. 4	Assess spiritual and psychological needs	100	64	30	4
K. 5	Accept individual beliefs	100	79	20	2
K. 6	Identify personal beliefs	94	87	15	4
K. 7	Stimulate family communication	100	59	38	4
K. 8	Listen actively	100	89	5	5
K. 9	Interpret body language	100	84	11	5
K.10	Empathize with patient and family	100	77	21	2
K.11	Assist in problem solving	100	75	23	2
K.12	Make appropriate referrals	100	39	61	0

[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

personal in preservice programs. Examples are: "Identify personal beliefs" (K.6), "Listen actively" (K.8), and "Interpret body language" (K.9). This percentage decreases in competencies which involve patient and family interaction, such as "Empathize with patient and family" (K.10), and "Assist in problem solving" (K.11). The decrease is even more noticeable in competencies which involve the health care team and are affected by the specific care environment. Examples are: "Develop supportive skills" (K.1) and "Make appropriate referrals" (K.12).

Category L: Death and Dying

As can be seen from Table 31, both preservice and on-the-job training are reported by the respondents as the method of acquiring competencies L.1, L.2, L.3, and L.5. Caring for the dying patient is an area in which nurses feel competent only if they have had adequate opportunity to practice their skills. Some have this opportunity during training, while others do not.

Competencies L.6, "Make referrals for identified needs," L.7, "Participate in bereavement follow-up," and L.8, "Provide emotional support to colleagues," are all perceived as having been acquired on the job. Again, it would appear that these competencies are affected by the particular situation in which one works and, hence, can only be acquired on the job.

TABLE 31

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category L: Death and Dying

Abbreviated Competency Statement	Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
		RN Program	On the Job	Advanced Training
L.1 Identify personal views about death	98	51	40	9
L.2 Identify needs of dying patient	100	36	55	7
L.3 Assess symptom control needs	98	45	49	4
L.4 Provide physical comfort	96	70	29	0
L.5 Provide psychological support	100	50	43	7
L.6 Make referrals	100	27	70	2
L.7 Bereavement follow-up	48	0	59	7
L.8 Support colleagues	100	27	70	2

[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

Category M: Teaching of Peers and Colleagues

In this category (Table 32), three of the competencies were reported by a clear majority of respondents as having been acquired in preservice educational programs: M.1, "Assume responsibility for own learning," M.3, "Use library and resource material," and M.5, "Seek information from other health care providers." These competencies are ones which would clearly be used by students while participating in preservice educational programs. The majority of the respondents reported acquiring the remaining competencies on the job. These competencies can be seen to reflect skills which are developed over time during one's career.

Category N: Sexuality

In this category (Table 33), the majority of respondents reported that they had acquired all competencies apart from two through preservice educational programs. The two competencies which are reported by the majority as having been acquired on the job and through advanced training are N.2, "Identify limitations due to disease or treatment," and N.7, "Inform patient of available aids and resources." Again, these skills can be seen as dependent on situation or context.

TABLE 32

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category M: Teaching of Peers and Colleagues

Abbreviated Competency Statement		Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
			RN Program	On the Job	Advanced Training
M. 1	Assume responsibility for learning	100	79	18	4
M. 2	Act as a role model	96	41	52	2
M. 3	Use library resources	100	75	21	4
M. 4	Act as a preceptor for staff	88	18	65	8
M. 5	Seek information from others	100	63	38	0
M. 6	Collaborate with peers	100	55	45	0
M. 7	Assist with workshops	64	5	51	11
M. 8	Present at teaching programs	96	15	69	5
M. 9	Report on conferences	79	18	61	7
M.10	Contribute to publications	71	10	63	10
M.11	Develop resource material	68	16	45	8

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[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

TABLE 33

Percentage of Respondents Reporting Relevance of Competency and Where Competency Acquired[1]

Category N: Sexuality

Abbreviated Competency Statement		Reporting Relevance of Competency[2]	Where Competency Acquired[3]		
			RN Program	On the Job	Advanced Training
N.1	Examine own beliefs about sexuality	98	67	18	15
N.2	Identify limitations	100	41	55	2
N.3	Demonstrate acceptance	100	57	41	2
N.4	Assist patient in verbalizing concerns	100	63	34	4
N.5	Encourage communication	100	55	38	7
N.6	Provide psychological support	100	64	36	0
N.7	Inform patient of resources	98	24	69	0

[1] All percentages rounded to nearest whole figure.
[2] Percentage of total sample.
[3] Percentage of those reporting relevance.

Comments From Respondents

Several respondents commented on the difficulty of indicating where a competence was first acquired. They noted that although they acquired knowledge and skills inherent in competencies in their preservice programs, they did not perceive themselves as competent when they first began practising as registered nurses; that competence was gained through experience. Others commented that, although they had perceived themselves to be competent when initially employed, they now disputed this fact. Competence had been acquired on the job. Their perception of competence appears to have changed as they gained expertise.

Several other respondents, while not commenting, indicated the same difficulty by either circling both RN and Job or by drawing an arrow or line looping the two boxes together. Because of the wording of the question, all of these responses were tabulated as having acquired the competence in preservice educational programs.

Summary

It appears that it is difficult to come to a consensus as to where competencies in nursing are acquired. This may be related to the differing clinical opportunities that are experienced by nurses in preservice educational programs or to their individual perceptions of competence. In areas which are highly specific to oncology nursing, the consensus was greater than in those areas where the competency statement could be more readily transferred to other nursing contexts.

Identification of Competencies as Entry or Developmental

The number of times that each competency was classified as "entry" or "developmental" was tabulated in order to answer the question:

> Which of the required competencies were required as entry competencies and which were identified as developmental competencies?

The results are presented for each competency as a percentage of the number of respondents who perceived the specific competency to be relevant. Only those competencies that were reported as "developmental" by 20% or more of the respondents will be discussed. This percentage was chosen taking into account the sample size of 50 and knowledge of the occupation.

Category A: Health and Physical Assessment

Table 34 shows that A.3, "Teach self-assessment skills to others," A.4, "Identify teaching needs in the area of prevention and detection," A.5, "Participate in screening programs," and A.6, "Participate in

TABLE 34

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category A: Health and Physical Assessment

Abbreviated Competency Statement		Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
A.1	Assessment skills	96	93	7	0
A.2	Communicate observations	98	98	2	0
A.3	Teach self-assessment	80	69	31	16
A.4	Prevention and detection	87	78	22	8
A.5	Screening programs	36	30	70	50
A.6	Community awareness	45	28	72	48

community awareness programs," were perceived to be developmental by 31%, 22%, 70% and 72%, respectively. These competencies are not directly related to patient care within cancer institutes but to prevention and early detection programs offered in the community. Thus competence in these areas is not necessary for adequate performance on the job.

Category B: Intravenous Therapy

Competencies B.4, "Establish intravenous infusion with intracath," and B.10 "Maintain arterial lines," were perceived as developmental by 24% and 25% respectively. Although B.4 is a competency which is used frequently once acquired, it may be gained after the orientation period without compromising care. B.10 is a competency used infrequently and it would be usual for patients with this need to be assigned to an experienced nurse.

Category C: Antineoplastic Agents, Hormones and Immunotherapy

Competency C.11, "Administer antineoplastics by bolus when appropriate," was designated as developmental. This competency is one which is, by policy, carried out by nurses who have worked in the Institute for at least six months. At this time, the opportunity to acquire this competency is offered to these nurses. It is worth noting

TABLE 35

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category B: Intravenous Therapy

	Abbreviated Competency Statement	Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
B. 1	Infection control	96	98	2	0
B. 2	Teach about intravenous	91	94	6	0
B. 3	Establish with scalpvein	84	91	9	2
B. 4	Establish with intracath	82	76	24	13
B. 5	Maintain intravenous infusion	96	98	2	0
B. 6	Operate pumps and controllers	87	84	16	8
B. 7	Observe condition of patient	98	96	4	0
B. 8	Care for central lines	84	96	4	0
B. 9	Draw blood from devices	93	94	6	2
B.10	Maintain arterial lines	71	75	25	8
B.11	Administer blood products	80	95	5	2
B.12	Administer medications	96	100	0	0

(Continued)

TABLE 35

(Continued)

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category B: Intravenous Therapy

Abbreviated Competency Statement	Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
B.13 Administer analgesics	80	95	5	0
B.14 Administer total parenteral nutrition	71	95	5	0
B.15 Identify adverse reactions	98	98	2	0
B.16 Establish heparin locks	89	88	12	8
B.17 Discontinue intravenous	98	100	0	2

TABLE 36

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category C: Antineoplastic Agents, Hormones and Immunotherapy

Abbreviated Competency Statement		Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
C. 1	Teach patient and family	100	91	9	2
C. 2	Provide psychological support	100	95	5	0
C. 3	Follow protocol for administration	100	88	12	2
C. 4	Check appropriate tests	98	93	7	2
C. 5	Monitor patient	100	100	0	0
C. 6	Provide nursing for side effects	98	100	0	0
C. 7	Practice safety measures	96	98	2	0
C. 8	Prepare agents	73	80	20	5
C. 9	Dispose of wastage	96	100	0	0
C.10	Administer drugs	96	89	11	2
C.11	Administer by bolus	91	67	33	16
C.12	Treat for extravasation	95	94	5	5

(Continued)

TABLE 36

(Continued)

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category C: Antineoplastic Agents, Hormones and Immunotherapy

Abbreviated Competency Statement	Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
C.13 Recognize side effects	100	98	2	0
C.14 Initiate treatment for side effects	100	98	2	0
C.15 Monitor nutritional status	98	93	7	0

that C.8, "Prepare agents for administration," was designated as developmental by only 20%. These agents are prepared only in the pharmacy department and it is unlikely that nurses will ever have to carry out this competency.

Category D: Radiation Therapy

As seen in Table 37, "Administer radio-sensitizers and protectors" (D.6) is perceived as developmental by 40% of the respondents. These agents are administered as part of a research protocol and are frequently the responsibility of a nurse in a research role. Competency D.8, "Operate after-loading equipment," is perceived as developmental by 25% of respondents. Once more, this is a specialized procedure with which staff are familiarized after their initial period of employment.

Category E: Invasive, Diagnostic and Therapeutic Procedures

All competencies are seen as at "Entry" level.

Category F: Emergency Care

All competencies are perceived to be at "Entry" level.

TABLE 37

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category D: Radiation Therapy

Abbreviated Competency Statement	Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
D. 1 Teach patient and family	95	92	8	0
D. 2 Provide psychological support	95	96	4	0
D. 3 Follow protocol	91	94	6	0
D. 4 Check tests	84	89	11	0
D. 5 Provide nursing for side effects	93	96	4	0
D. 6 Administer radiosensitizers and protectors	36	60	40	25
D. 7 Radiation safety	75	98	2	5
D. 8 Operate after-loading equipment	44	75	25	19
D. 9 Monitor patient with external radiation therapy	71	98	2	3
D.10 Monitor patient receiving internal radiation therapy	64	89	11	11
D.11 Recognize side effects	89	98	2	0
D.12 Initiate treatment for side effects	88	94	6	0
D.13 Monitor nutritional status	88	96	4	0

TABLE 38

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category E: Invasive Diagnostic and Therapeutic Procedures

Abbreviated Competency Statement		Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
E. 1	Teach procedure to patient	98	91	9	2
E. 2	Provide psychological support	100	96	4	0
E. 3	Obtain informed consent	93	98	2	0
E. 4	Assemble necessary equipment	93	92	8	2
E. 5	Assist with specific procedure	95	91	9	2
E. 6	Perform procedures as qualified	89	90	10	4
E. 7	Obtain specimens	96	94	5	2
E. 8	Observe for complications	98	98	2	2
E. 9	Take appropriate action for complications	98	91	9	2
E.10	Provide nursing care related to procedure	98	96	4	2

TABLE 39

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category F: Emergency Care

Abbreviated Competency Statement	Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
F.1 Assess situation	98	98	2	0
F.2 Summon assistance	98	100	0	0
F.3 Perform basic life support	98	98	2	4
F.4 Use emergency equipment	93	94	5	7
F.5 Administer appropriate measures	93	90	10	7
F.6 Provide psychological support	96	96	4	2
F.7 Identify oncologic emergencies	98	94	6	4
F.8 Care for oncologic emergencies	96	96	4	2
F.9 Retain control	98	88	12	6

Category G: Research

As reported in Table 40, the majority of the competencies in this category were perceived as "developmental" with agreement ranging from 74% to 24%. It would appear that the competencies designated as "developmental" are associated with the process of conducting research and do not involve direct patient care. It would, therefore, be appropriate to encourage employees to acquire these competencies through research courses at the universities.

Category H: Patient and Family Education

All competency statements apart from H.9, "Assist in development of teaching materials," are perceived as "entry."

Category I: Rehabilitation and Follow-up

All competencies are perceived as "entry."

Category J: Pain Management

Table 43 shows that one competency was perceived by over 20% of the respondents to be "developmental": J.5, "Administer nitrous oxide." This is an adjunctive treatment for pain and enlarges the scope of the nurse's practice rather than being essential to it.

TABLE 40

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category G: Research

Abbreviated Competency Statement		Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
G. 1	Identify research question	63	46	54	26
G. 2	Use channels for research review	48	48	52	26
G. 3	Conduct research	48	44	56	33
G. 4	Evaluate research findings	41	26	74	39
G. 5	Disseminate research findings	41	43	57	35
G. 6	Utilize research findings	71	48	52	17
G. 7	Develop views about ethics	84	62	38	8
G. 8	Volunteer as a subject	71	55	45	13
G. 9	Ensure consent is obtained	79	86	14	7
G.10	Follow research protocols	84	91	9	2
G.11	Inform about unconventional therapy	88	90	10	2
G.12	Act as a patient advocate	84	94	6	2
G.13	Question research practices	82	76	24	8
G.14	Assist in data collection	88	64	36	10

TABLE 41

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category H: Patient Education

Abbreviated Competency Statement		Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
H. 1	Utilize principles of teaching/learning	100	91	9	2
H. 2	Assess learning needs	100	91	9	0
H. 3	Assess learner	96	91	9	2
H. 4	Assess environment	98	91	9	2
H. 5	Formulate objectives	95	85	15	5
H. 6	Design teaching plan	93	81	19	5
H. 7	Implement teaching plan	95	87	13	3
H. 8	Evaluate attainment of objectives	95	85	15	3
H. 9	Develop teaching materials	96	20	80	7
H.10	Access resource information	96	87	13	0

TABLE 42

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category I: Rehabilitation and Follow-up

Abbreviated Competency Statement	Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
I.1 Identify patient/family needs	98	91	9	0
I.2 Assist adjustment to modified lifestyle	96	89	11	0
I.3 Inform about available resources	95	87	13	0
I.4 Refer to appropriate agencies	86	90	10	2
I.5 Access necessary aids	87	89	11	4
I.6 Teach correct use of aids	77	81	19	6
I.7 Ensure follow-up	73	93	7	2
I.8 Evaluate rehabilitation	52	86	14	10

TABLE 43

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category J: Pain Management

	Abbreviated Competency Statement	Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
J. 1	Respond to indications of pain	100	100	0	0
J. 2	Assess pain	98	98	2	0
J. 3	Utilize principles of pain management	98	96	4	0
J. 4	Administer drugs	93	100	0	0
J. 5	Administer nitrous oxide	68	63	37	2
J. 6	Utilize non-invasive techniques	95	85	15	4
J. 7	Maintain pain chart	79	86	14	11
J. 8	Evaluate effect of techniques	96	100	0	2
J. 9	Monitor patient for complications	98	100	0	2
J.10	Initiate analgesics	93	100	0	0
J.11	Provide physical comfort	98	100	0	0
J.12	Provide psychological support	100	98	2	0
J.13	Teach patient and family	100	95	5	0

Category K: Psychological and Spiritual Care

In this category, there was 100% agreement on the relevance of all but two of the competencies. K.4, "Assess spiritual and psychological needs," was reported as "developmental" by 21% of respondents. It is difficult to offer an explanation for this; however, it may be due to the fact that new employees had a great deal of new information to assimilate and apply and would tend initially to place more importance on competencies which involve physical care and are closely related to ensuring patient safety. The fact that it is seen as developmental by 21% suggests that competence in the area may be gained through practise and experience.

Category L: Death and Dying

One competency, L.7, "Participate in bereavement follow-up," was seen as "developmental" by 44% of the respondents. This is an area in which nurses are not routinely involved in the Cancer Institute unless on a voluntary basis.

Category M: Teaching of Peers and Colleagues

As shown in Table 46, six of the eleven competencies in this category were reported as "developmental" by more than 20% of the respondents. The competencies are related to self-development and

TABLE 44

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category K: Psychological and Spiritual Care

Abbreviated Competency Statement	Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
K. 1 Develop supportive skills	98	91	9	0
K. 2 Establish therapeutic relationship	100	96	4	0
K. 3 Provide supportive environment	100	98	2	0
K. 4 Assess spiritual and psychological needs	100	79	21	2
K. 5 Accept individual beliefs	100	92	8	0
K. 6 Identify personal beliefs	94	87	13	0
K. 7 Stimulate family communication	100	89	11	0
K. 8 Listen actively	100	96	4	0
K. 9 Interpret body language	100	89	11	0
K.10 Empathize with patient and family	100	94	6	0
K.11 Assist in problem solving	100	92	8	0
K.12 Make appropriate referrals	100	89	11	0

TABLE 45

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category L: Death and Dying

Abbreviated Competency Statement	Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
L.1 Identify personal views about death	98	84	16	0
L.2 Identify needs of dying patient	100	92	8	2
L.3 Assess symptom control needs	98	95	5	2
L.4 Provide physical comfort	96	98	2	0
L.5 Provide psychological support	100	100	0	0
L.6 Make referrals	100	89	11	2
L.7 Bereavement follow-up	48	56	44	3
L.8 Support colleagues	100	89	11	2

TABLE 46

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category M: Teaching of Peers and Colleagues

Abbreviated Competency Statement		Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
M. 1	Assume responsibility for learning	100	94	6	0
M. 2	Act as a role model	96	85	15	5
M. 3	Use library resources	100	86	14	0
M. 4	Act as a preceptor for staff	88	71	29	8
M. 5	Seek information from others	100	89	11	0
M. 6	Collaborate with peers	100	91	9	0
M. 7	Assist with workshops	64	50	50	34
M. 8	Present at teaching programs	96	59	41	11
M. 9	Report on conferences	79	59	41	14
M.10	Contribute to publications	71	35	65	18
M.11	Develop resource material	68	42	58	32

TABLE 47

Classification of Competencies as Entry, Developmental or Requiring Further Education

Category N: Sexuality

Abbreviated Competency Statement	Competency as Relevant	"Entry" Competency	"Developmental" Competency	Competency Requiring Further Education
N.1 Examine own beliefs about sexuality	98	87	13	0
N.2 Identify limitations	100	88	12	2
N.3 Demonstrate acceptance	100	91	9	0
N.4 Assist patient in verbalizing concerns	100	91	9	0
N.5 Encourage communication	100	92	8	0
N.6 Provide psychological support	100	89	11	0
N.7 Inform patient of resources	98	84	16	7

teaching roles. Therefore, it would appear that acquiring these areas of expertise would not be essential. However, acquisition of these competencies may enhance job satisfaction and professional development of the more experienced employee.

Category N: Sexuality

All competencies in this category are perceived as "Entry" level.

Summary

It appears that competencies may be identified as entry or as developmental. However, there is no consensus on which the developmental competencies should be. Thus, it would appear that decision making in this area would have to be made by nursing administrators with assistance from designated expert nurse clinicians.

Perceived Education Required

In order to answer the question:

> "Which of the required competencies were not being used due to lack of knowledge?"

the number of respondents who reported each competency as being relevant but who did not use it due to lack of education was tabulated. These figures are reported as percentages in Tables 34 to 47.

On reviewing those data, it becomes apparent that there were only 23 out of the 154 competencies where 10% or more of the respondents indicated further education to be necessary before utilizing the competency. All of the competencies which fell into this area were either competencies which had a low perceived relevance or had a relatively high percentage of the respondents who perceived them as developmental. For many competencies, both of these conditions prevailed. Further, those who characterized the competencies as relevant but not used due to lack of educational preparation, also reported them as developmental competencies.

Specific competencies in category G, Research, were reported as relevant but not used due to lack of educational preparation by over 25% of the respondents, once more indicating the need for an increase in programming in this area or the need to encourage nurses to pursue a Baccalaureate degree.

After reviewing each competency statement, 29 competencies have been listed in Table 48 as "developmental." The decision to label these specific competencies as "developmental" was reached by taking the following factors into account for each statement:

TABLE 48

Competencies Selected as Developmental

		Relevant	Developmental	Further Education Required
Category A:	**Health and Physical Assessment**			
A. 3	Teach self-assessment skills to others	80	31	16
A. 4	Identify teaching needs in the area of prevention and early detection	87	22	8
A. 5	Participate in screening programs	36	70	50
A. 6	Participate in community awareness programs	45	72	48
Category B:	**Intravenous Therapy**			
B. 4	Establish intravenous infusion with intracath	82	24	13
B.10	Maintain arterial lines	71	25	8
Category C:	**Antineoplastic Agents, Hormones and Immunotherapy**			
C. 8	Prepare agents for administration	73	20	5
C.11	Administer drugs by bolus	91	33	16
Category D:	**Radiation Therapy**			
D. 6	Administer radiosensitizers and protectors	36	40	25
D. 8	Operate after-loading equipment	44	25	19

(continued)

TABLE 48

(Continued)

Competencies Selected as Developmental

		Relevant	Developmental	Further Education Required
Category G: Research				
G. 1	Identify research question	63	54	26
G. 2	Use channels for research review	48	52	26
G. 3	Conduct research	48	56	33
G. 4	Evaluate research findings	41	74	39
G. 5	Disseminate research findings	41	57	35
G. 6	Utilize research findings	71	52	17
G. 8	Volunteer as a subject	71	45	13
G.13	Question research practices	82	24	8
G.14	Assist in data collection	88	36	10
Category H: Patient and Family Education				
H. 9	Assist in development of teaching materials	96	80	7
Category J: Pain Management				
J. 5	Administer nitrous oxide	68	37	2

(continued)

TABLE 48

(Continued)

Competencies Selected as Developmental

		Relevant	Developmental	Further Education Required
Category K:	**Psychological and Spiritual Care**			
K. 4	Assess spiritual and psychological needs	100	21	2
Category L:	**Death and Dying**			
L. 7	Participate in bereavement follow-up	48	44	3
Category M:	**Teaching of Peers and Colleagues**			
M. 4	Act as a preceptor for staff	88	29	8
M. 7	Assist in planning of workshops and seminars	64	50	34
M. 8	Present at nursing rounds and other teaching programs	96	41	11
M. 9	Report on conferences attended	79	41	14
M.10	Contribute to nursing newsletter and other publications	71	65	18
M.11	Develop teaching resource material	68	58	32

1. the percentage reporting it as "relevant",
2. the percentage reporting it as "developmental,"
3. the percentage reporting further education required,
4. the knowledge of the practice of oncology nursing.

These competencies might form the basis of a continuing education program in the Cancer Institute. If the profile were to be used to develop a certification program for oncology nurses, all the competencies originally identified should be included in order to ensure that nurses undertaking such a program are prepared in all aspects of oncology nursing and to work in all areas within a cancer institute.

CHAPTER V

DISCUSSION OF FINDINGS

The study had two purposes. The first was to develop a validated competency analysis profile for oncology nursing and to identify information that would be useful to nursing administration personnel in planning programs for the nurses. Specifically, the information would relate to

1. where individual employees obtained competencies;
2. if competencies were applicable generally or to specific areas or roles;
3. which competencies were seen as necessary on entry into the area of oncology nursing and which could be developed over time.

At the same time, an attempt was made to assess the effectiveness of certain techniques that made up the process used to identify the competencies. The discussion of findings is, therefore, divided into two sections: one on the product developed and one on the process used.

PROCESS

Development of a Competency Analysis Profile

The profile was developed by a group process, utilizing eight individuals from different educational and experiential backgrounds who were perceived to be experts in oncology nursing.

The activities of the group were recorded on audio-tape, with the permission of the participant, in order to allow evaluation of the process through analysis of the activities and comments made by the participants.

The process of utilizing a group of experienced practitioners to identify competencies for specific occupations is one supported by several writers (Adams, 1975; Manuel and Deane, 1976). However, it is a time-consuming process and utilizes a group of individuals who must be replaced in their work situation while they participate. In days of budget constraints, it is important to demonstrate that this methodology resulted in a better product than if other less expensive methodologies had been used.

Several issues are raised, some relating to the process in general and others to its use in nursing in particular.

The first issue concerns pressures arising in a group situation to conform to majority opinion. As with all group activities, the worth of the product relates to the quality of the individuals selected and the ability of the group leader to facilitate their functioning as a group by guiding but not directing. In group situations there is the likelihood of pressure being brought to bear upon an individual in the group to conform with the beliefs and values of the majority. This was shown several times when group members withdrew comments and suggestions when pressured by peers with differing opinions. Even a skilled group leader was unable to prevent this from happening at all times. This may have led to the omission of competencies that were perceived to be important by individual group members.

The second issue concerns the process involved in identifying major categories of competence and the specific competency statements within the categories. This is achieved by a brain-storming process; however, it appears that this process may inhibit the thinking of participants. Although group members were encouraged to suggest competencies in any category as they came to mind, the members appear to have concentrated on one category at a time and were reluctant to give any further considerations to a category after completing it. Competencies which could not be fitted into an existing category were ignored or discarded. Thus, the brain-storming process appeared to be inhibited by the need to classify. Perhaps it would be more satisfactory to list all the specific competencies as they come to mind and then categorize them. Group members also appeared reluctant to add further major categories once they were initially decided upon. An example was the inclusion of category N, "Sexuality," which was introduced, hesitantly, on the morning of the third day by two members of the group. They indicated a reluctance to add to the list which had seemed complete up to that point. As can be seen, this category was perceived as relevant by 100% of the respondents in all but two competencies.

The third issue concerns utilizing the process to identify competencies for a specialized area within nursing. Due to the diverse training programs for registered nurses and the diverse experiences of individual nurses within these programs, the competencies acquired in preservice educational programs will differ. Thus, with no clearly defined common base of competencies, it is clearly difficult to agree upon competencies which are unique to specialty areas of nursing and are over and above those gained in preservice programs.

After discussing this issue, it was decided to include categories and specific competencies which, although not perceived to be exclusive to the practice of oncology nursing, are of great importance in caring for cancer patients. For example, the decision was made to retain category B, "Intravenous therapy," although it is common to all areas of nursing and is a specialty in its own right. However, there remains the uncertainty that important competencies may have been omitted, on the assumption that they are included in preservice programs. Such an area was surgical oncology, which was eliminated after lengthy discussion, as it was decided that competencies which were listed under this category would be acquired in preservice educational programs.

A fourth difficulty was that of limiting the profile to nursing competencies describing nursing responsibilities rather than medical competencies. This required clarifying what nurses should be doing rather than what nurses actually do. Frequently the competencies that nurses perform may be viewed as functions or responsibilities of physicians. Benner (1984) identifies this as a significant problem which occurs when attempting to define competencies in any area of nursing and suggests that there is a need to define what nurses actually do and give credence to those aspects of a nurse's role rather than denying them. One benefit would be that students could be adequately prepared to undertake these aspects of their role.

Validation Procedure

The validation procedure is seen as being necessary by Manuel and Deane (1976) in order to expose "the profile to a larger sample of the occupation for its review and criticism." Further than that, the validation procedure assists in instilling an ownership of the profile in members of the occupation.

The validation process is lengthy and time-consuming, and tends to result in a relatively low response rate. Although useful information is gained from the process, much of that information could have been gained by having a smaller group of individuals, who are representative of the occupation, review the original profile. In this way, efforts could also have been made to identify and clarify ambiguous statements through discussion.

It is suspected that the length of time required to review the profile and validate it tends to discourage many individuals from giving in-depth thought to the profile and adding competencies which may have been omitted or identifying ambiguous statements.

The group activity and the validation process used in this instance were clearly costly and whether the benefits achieved justify the cost is questionable.

PRODUCT

Profile of Oncology Nursing

In general, the major objectives of this project were achieved. A profile of competencies required for nurses working in the area of oncology nursing was developed. Furthermore, the competencies were categorized as "entry" or "developmental." However, some qualifications need to be articulated. These have to do with:

1. The ambiguity of competency statements;

Individual competency statements are frequently unclear or ambiguous, leaving doubt in the minds of individuals who use the profile as to the intended meaning. Individuals appear to extract different meanings from the competency statements depending on their frame of reference. This will be influenced by the individual's experience, previous work situations, and value system. Thus, one wonders how much of the original intent would be retained if this profile were to be used. Take, for example, category F, "Emergency care".

To review, here again are the statements that were generated:

Emergency Care: F.1, "Assess situation;" F.2, "Summon assistance;" F.3, "Perform basic life support;" F.4, "Use emergency equipment;" F.5, "Administer appropriate measures and drugs;" F.6, "Provide psychological support;" F.7, "Identify signs and symptoms of common oncological emergencies;" F.8, "Initiate appropriate nursing care for common oncological emergencies;" F.9, "Retain control of situation and self."

This whole category is not precise enough in its language to convey the intent of the group developing the profile. The intent was that these competencies would relate to care given to patients in long-term critical conditions as well as the more short-term emergency situation. It is quite probable that individuals who utilize the profile would not perceive that intent.

2. The variation in the specificity of competency statements;

There is throughout the profile a variation in the specificity of individual competency statements. The competencies identified range from broad conceptual statements, as in the area of research, to specific task-oriented competencies, as in the area of intravenous therapy. This variation in precision may be a function of varying importance that was unconsciously placed on specific areas by the participants; or perhaps the categories described in more detail are those with which the participants were more comfortable and about which they were more knowledgeable.

Some competencies recur in several categories - for example "teach patient and family" and "provide psychological support." These competencies are addressed in detail in two major categories, "Patient and Family Education" and "Psychological and Spiritual Care" and therefore it appears redundant to list them in each category. It is presumed that the intent of these categories is to prepare nurses to be competent in those areas irrespective of the specific circumstances.

3. The difficulty in categorizing competencies as "entry" and "developmental";

There is difficulty in categorizing categories as "entry" or "developmental." The individual nurse tends to perceive it as necessary to be competent in all areas on entry to the work setting (Boyd and Conrad, 1981). This is possibly due to the fact that the nurse cannot be assured that an experienced nurse who has acquired the "developmental" competencies will be available to assist in these areas when necessary.

The decision to categorize competencies is therefore somewhat arbitrary with the most reliable judge perhaps being a nurse or group of nurses, knowledgeable in clinical practice, who base the decision on experience and a perception of the importance of the competencies in everyday practice.

4. The exclusivity of competencies to the specialty of oncology nursing;

On reviewing the competency statements, it is noted that few competency statements and, indeed, few major categories can be seen to be exclusive to the practice of oncology nursing. It is probable that many other nursing specialty profiles would look similar, with the exclusion of category C, "Antineoplastic agents, hormones, and immunotherapy," and category D, "Radiation therapy." The exclusivity in relation to the specialties is seen to lie in knowledge of the disease process and the different approaches to a patient that would be taken. The exclusivity of competencies is also blurred by overlap between specialties. For reasons such as these, it would appear to be important for all specialty groups in Canada to work closely together in developing certification programs and examinations. Such cooperation would also minimize the cost of this expensive process.

Several of the competencies appear to reflect desired traits or values related to professionalism rather than competencies necessary for caring for the patient. Examples are under category G, "Research" and category M, "Teaching of peers and colleagues." These competencies may not reflect actual nursing behaviors but appear to be seen by the group as values that are necessary. It is difficult to include important traits such as caring and sensitivity in such a profile and it appears useful that an attempt has been made. Without these aspects in the profile, the important subtleties in the nurse's role may be lost (Gordon in Benner, 1984).

As was noted earlier, it appears to be possible, at least to some extent, to identify competencies required in specific areas within the Cancer Institute. This information may be helpful in developing more area-specific orientation programs or programs for individuals who are transferring from one area to another.

The profile does appear to be useful in providing prospective employees with an overview of the profession and in enabling them to make more informed decisions about the particular branch of nursing that they might enter. This would seem to be particularly useful in oncology nursing, where new employees frequently come with an unrealistic view of the specialty; often they are not aware of the acute care aspects of nursing related to aggressive treatment. This naivety can lead to a high attrition rate in the early months of employment. On the other hand, however, it has been noted that individuals who have viewed a competency analysis profile of their profession can be left feeling overwhelmed and inadequate (Young-Checkland, 1984). As this could certainly have a deleterious effect on hiring practices, care must be taken to reassure prospective employees that educational programs will be offered to assist them in gaining these competencies.

Educational Needs of Oncology Nurses

It was hoped, through the validation process, to clearly identify competencies which had been acquired during preservice educational programs and thus to more clearly identify areas of competence which would not need to be addressed in the specialty program.

As has been demonstrated, there appear to be few areas where there is consensus that the competencies are gained in preservice educational programs. Each respondent, irrespective of the type of educational program or years of experience, had a particular perception of where he/she had acquired the competence. Again, it appears that this perception depends on the individual's frame of reference and personal view of competence. It may be that clinical experiences will have the greatest impact on one's perception of competence, and that a personal source of competence does not come until knowledge that was gained in the classroom and is practised in both laboratory and clinical settings has been successfully applied in a specific employment position. This position is supported by Chickering and Claxton (in Nickse, 1981) who have identified the importance of the situational, contextual and personal aspects of competence.

It would appear that this consideration is significant in the area of orientation and staff development programs for nurses. Traditionally, in an attempt to ensure competence of new employees, particularly those working in specialized areas, complex and expensive classroom programs are offered, whose function is to review subjects and skills which have been addressed in preservice programs. More often than not, teaching methodologies, such as lecture and demonstration, are utilized. Moreover clinical supervision is frequently inadequate and serves only to leave new employees with a sense of being ill-prepared for their role. In light of the findings reported here, it is suggested that changes in classroom programs are needed and that more case studies and simulations should be included. More resources need to be directed to assisting new employees in applying their knowledge at the clinical level with the assistance of a fully competent role model. The majority of situations in nursing are complex and it would appear that such an approach would assist in synthesizing the requisite competencies into a meaningful whole, thus avoiding the fragmentation which may result from a competency-based approach to education (Butler, 1978; Benner, 1984).

The data also provide another perspective to the ongoing discussion between nursing service administrators and nursing educators about preservice educational programs which are often perceived to leave nurses ill-prepared to work in health care agencies. Perhaps the content of the preservice educational programs should be reviewed so as to concentrate on ensuring that newly-graduated nurses have gained confidence in applying skills and knowledge of a basic nature rather than teaching specialized knowledge which they are unlikely to use unless they enter the appropriate field of nursing. Hiring agencies would then have to accept responsibility for assisting the new employee in applying these competencies in the complex clinical situations to which the student has not been exposed.

The data also indicate that even in areas that are seen to be specific to oncology nursing, some respondents had acquired the competencies during their preservice program. It is considered likely that those respondents are staff nurses who were assigned to the Cancer Institute as senior nursing students and consequently had been able to apply that knowledge they had acquired in the clinical area. Such individuals have proved to be successful employees, appearing to require less support than other new employees as they adapt to the staff nurse role.

Nurse administrators frequently will seek to hire experienced nurses for areas, regardless of whether the experience is related to the area for which they are being hired. This is based on the premise that the experienced nurse can transfer this experience from one area to another with little support or assistance, thus lessening the cost of the orientation period. While this may be true to some extent, it is suggested that a new employee must be closely monitored and supported until it is ensured that she can apply her skills and knowledge in the new situation.

Summary

The competency analysis profile of oncology nursing presents a useful picture of the role of the nurse in oncology. It could be useful in the development of orientation and continuing educational programs within individual organizations and in the development of certification programs at the national level.

However, care is necessary in utilizing this framework to ensure that it does not become an end in itself - which would lead to a reductionist approach to educational programming - but rather a means to an end.

Consideration should be given to reviewing the traditional approaches used in staff development programs and orientation programs to ensure that the needs of the individual employee are being met.

CHAPTER VI

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

The study was conducted in two phases. The purpose of the first phase was to develop, through a group process, a requisite competencies profile of oncology nursing.

The first research question, then, was:

1. What competencies are perceived as necessary for nurses who practise oncology nursing?

The participants in this process were nurses employed in oncology nursing.

During the second phase, this profile was distributed to nurses working in the area of oncology in order to validate the profile. Two other important objectives were to identify where nurses acquired the competencies and to determine whether they were perceived to be entry (basic) competencies or whether they were perceived to be developmental.

The second and third major research questions, therefore, were:

2. How are the identified competencies acquired?
3. Which competencies are necessary as "entry" level competencies?

The conclusions were based on the perceptions of these nurses practising in oncology nursing and are presented next, organized under the three primary research questions.

Conclusions

1. What competencies are perceived as necessary for nurses who practise oncology nursing?

A competency analysis profile was developed by a group of expert practitioners which identified specific competencies necessary for nurses working in the area of oncology nursing. While the profile will be a useful starting point for the development of educational programs for nurses, the process used was lengthy and expensive. It is uncertain that the product developed is of better quality or more encompassing than that which might have been developed by using a more inexpensive methodology such as having one individual develop a list of competencies and having it validated by a small group of experts in the profession.

2. How are the identified competencies acquired?

Although individual nurses could say where they had acquired individual competencies, the findings are inconclusive in regard to identifying competencies which are, without doubt, acquired in preservice educational programs. Thus, it appears that the learning needs of new employees should be identified on an individual basis utilizing the profile as an assessment tool. A change in approach to staff education programs is suggested in order to assist employees to apply knowledge and skills, which they have acquired elsewhere, to the specific work setting.

3. Which competencies are necessary as "entry" level competencies?

Although the data gathered were insufficient to draw firm conclusions as to whether competencies were entry or developmental, there was enough evidence to enable nursing administrators and nurse educators to decide which competencies could be seen as developmental. It appears that those competencies where individuals reported a need for further education were the same competencies as those reported as developmental. Although this gives some crude information about developmental or advanced competencies for oncology nurses, it would appear that further investigation is necessary to distinguish competencies that are necessary for beginning oncology nurses from those that are necessary for advanced practitioners.

Recommendations

The recommendations advanced here relate to the planning of educational programs in specialty areas in nursing, specifically oncology nursing.

1. There remains a need for nurse educators in preservice educational programs to identify even more clearly areas of competence that are taught to newly-registered nurses. These competencies need to be stated clearly in order to indicate the types of experience and situations to which graduates have been exposed. Further, consideration should be given to eliminating from the curriculum knowledge and theory which students have no chance to apply in the clinical settings.

2. Specialty groups in nursing should work closely with each other in developing certification and testing procedures in

order to identify areas of similarity between the specialties and to develop cooperatively educational programs that would be of mutual benefit.

3. Staff development educators in health care agencies should review their approaches to orientation and continuing education, in order to provide more cost-effective programs which allow employees to apply the knowledge and skills that they have acquired in the clinical setting under supervision.

4. The Cross Cancer Institute and other oncology settings should consider utilizing the profile to assist in the development of educational programs for nurses working in these settings and for analyzing the learning needs of new employees. However, the profile should be used only as a framework and approaches should be used in programming to enable nurses to synthesize the competencies in order to apply them appropriately in the complex clinical situations present in the field of oncology.

5. Further work needs to be done within the area of cancer nursing in order to identify whether levels of practice can be developed for nurses practicing within this field. The profile would provide a beginning framework for this work which could be pursued within the Institute or nationally by the Canadian Association of Nurses in Oncology as they pursue the development of certification programs.

6. Although the methodology utilized to develop the profile is of value, administrators should consider carefully whether the end to be achieved warrants the use of such an expensive process. Consideration should be given to other less expensive ways of developing and validating competency lists.

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APPENDICES

APPENDIX A

LETTERS TO PARTICIPANTS DEVELOPING COMPETENCY PROFILE

ALBERTA
CANCER
BOARD

CROSS CANCER INSTITUTE
NORTHERN ALBERTA CANCER PROGRAM

April 6, 1983.

Dear

Thank you for agreeing to participate in the workshop planned for May 4th, 5th and 6th, 1983. The purpose of the workshop is to develop a profile of competencies necessary for nurses working in the area of medical oncology. This profile should be useful in developing appropriate educational programs.

The group leader for the workshop will be Dr. Roberta Carey from the Faculty of Nursing. An orientation to the process will take place at the beginning of the workshop.

DATES:	Wednesday, May 4th Thursday, May 5th Friday, May 6th
PLACE:	Radiation Therapy Instruction Room Cross Cancer Institute
TIME:	0830 - 1630 hours

Coffee and juice will be provided but due to budget constraints we are asking you to purchase your lunch.

I look forward to meeting with you at that time. If you have any further questions, please call me at 434-1869 or leave a message at 432-8746.

Yours Sincerely,

Marion J Boyd

Marion J. Boyd,
Assistant Education Co-ordinator.
(On Educational Leave)

MJB:hb

ALBERTA
CANCER
BOARD

CROSS CANCER INSTITUTE
NORTHERN ALBERTA CANCER PROGRAM

May 10, 1983.

Dear

Thank you for your participation in the development of the Competency Analysis Profile for Oncology Nurses. The completed document will be circulated for validation during the summer. I shall ensure that you are informed of the results.

Yours sincerely,

Marion J Boyd

Marion J. Boyd.

MJB:hb

APPENDIX B

NURSING STANDARDS - CROSS CANCER INSTITUTE

CROSS CANCER INSTITUTE

NURSING STANDARDS

Department of Nursing

1983

STRUCTURAL STANDARDS

Cross Cancer Institute

DEPARTMENT OF NURSING

STANDARD 1:

Job description for all nursing staff delineate qualifications, functions and responsibilities.

STANDARD 2:

Performance appraisal, based on job descriptions and competencies outline, is performed regularly as defined by personnel policy.

STANDARD 3:

Policies and procedures are current and updated at least every three years.

Criteria:

1. Policies and procedures are reviewed by a committee structure to ensure they are current.
2. There is opportunity for staff level participation in reviewing and revising policies and procedures.

STANDARD 4:

The organization of the nursing care team maximizes quality patient care.

Criteria:

1. There is senior nursing supervision at all times
2. All nursing personnel are fully qualified
3. Ancillary staff (ward aide, unit clerk, etc.) will be available
4. Change of shift report is carried out
5. Regular patient care conferences are held with appropriate members of multidisciplinary team.

STANDARD 5:

The required human and material resources and facilities needed to ensure quality patient care are available.

Criteria:

1. All levels of nursing coverage are available at all times
2. Medical and administrative supplies are available at all times
3. The structure of patient care unit provides required areas for delivery of care.

STANDARD 6:

Nursing staff have available current knowledge.

Criteria:

1. Reference manuals are current and available in patient care areas
2. Access to literature is provided
3. Changes in policy and procedure are circulated to those affected
4. Adequate inservice education is provided
5. Opportunity is provided for staff to attend continuing education programs
6. Patient care record is available for use by members of a multidisciplinary team:
   - a) nursing histories are available
   - b) nursing notes are updated regularly and available on file
   - c) nursing care plan is kept on Kardex and is current
   - d) information from other health professionals is available on file
   - e) results of tests, treatments are available on file
7. Patient care record is current.

STANDARD 7:

An ongoing staff development program will be provided for all nursing staff.

Criteria:

1. The following programs are provided:

   a) orientation program
   b) cardiopulmonary resuscitation program
   c) chemotherapy push program.

2. Ongoing regular inservice education is provided.

STANDARD 8:

Unit procedures are outlined for the protection and safety of all staff and patients.

Criteria:

1. Isolation facilities and procedures are available

2. Clean and dirty supplies are separated, sterile supplies are replaced within expiry date

3. Disposal of hazardous equipment (needles, glass, etc.) in recommended manner

4. Storage of medication in recommended manner

5. Procedure for preparation and disposal of anti-neoplastic agents is provided

6. Procedures for caring for patient with radioactive sources are provided.

STANDARD 9:

Unit is prepared for emergency situations.

Criteria:

1. Nursing responsibilities during medical emergency are clear and regularly reviewed

2. Emergency supplies are available at all times

3. Nursing responsibilities in case of fire are clear and regularly reviewed

4. Information regarding physician-on-call available at all times

5. Information regarding patient's next-of-kin is accurate and available.

PROCESS STANDARDS

PROCESS STANDARDS

STANDARD 1: DATA COLLECTION

General Description:

The nurse will systematically and continuously collect data pertaining to the health status of the patient.

Criteria:

1. The nurse will interview, observe, examine and consult with appropriate persons (patient, family, significant others, physicians and other health team members) and resources (medical records, current literature and scientific knowledge and own knowledge and experience) in order to:

   a) collect data pertaining to the patient's and family's physical, psychological, social, spiritual and sexual status

   b) identify factors (psychological, family, knowledge, spiritual, physical) that will influence

      i) the individual patient's choice of treatment and
      ii) the patient's or family's response to treatment

2. The nurse will make available all relevant information to appropriate persons by recording such information in the medical record and by on-going consultation with appropriate persons (patient, family, significant others, physicians, other health team members)

3. The nurse will demonstrate continuous data collection by:

   a) recording changes in patient/family status as they occur
   b) recording responses to nursing actions on a regular basis
   c) informing appropriate persons of changes in patient/family status

4. The nurse will treat data collected with regard for the confidentiality of those concerned.

Assessment Factors:

1. The nurse will collect the following information during admission and follow up (and as such factors change)

a) Physical

- Diagnosis: primary
  secondary
  metastases

- Other medical conditions that may influence care

- Physical handicaps and sensory limitations (mobility, hearing, sight, etc.)

- Baseline data (Ht., Wt., TPR, BP, Age)

- Ventilatory status

- Nutritional status (change in weight, dehydration, appetite, condition of mouth, nausea and/or vomiting)

- Eliminatory Status

- Skin and mouth condition

- Neurological status (alertness, balance, etc., especially for patients with CNS involvement)

- Activity and rest needs

- Growth and development

- Sexuality

b) Psychological

i) Intellectual

- degree of independence

- patient's desire to participate in decision making

- patient's and family's capabilities and limitations to deal with change (especially as pertains to coping with the cancer experience)

- patient's and family's knowledge of disease progression, available treatments and alternatives

- beliefs that may influence patient's and/or family's decisions regarding treatment.

c) Social

- Demographic data
- Support system - family, community
- Economic status
- Work or school history
- Responsibilities (family, work, etc.)
- Solitude and social interaction patterns

d) Spiritual

- Belief system

STANDARD 2: DATA ANALYSIS

General Description:

The nurse, on an ongoing basis, will analyze data collected from patient and/or family.

Criteria:

1. The nurse will

a) demonstrate knowledge of

i) normal anatomy and physiology

ii) pathophysiology as is necessary for nursing care

iii) current theories regarding grief and grieving, death and dying, the concept of loss, stress, family dynamics

iv) plan of medical treatment, expected outcome, possible complications and/or side effects

b) compare patient's and/or family's status (as determined by assessment) with the norm and determine the degree and direction of deviation

c) set priorities, for resolution of identified nursing needs, in agreement with the patient and/or family

d) identify and record the nursing needs of the patient and/or family in consultation with appropriate persons (patient, family, physician, other health personnel).

Assessment Factors:

1. The nurse incorporates the following information into formulating a plan of care for specific patient condition:

    a) appropriate laboratory values

    b) appropriate test results (i.e., ECG, bone marrow, specs for C&S, etc.)

    c) appropriate treatment protocols

    d) patient and family status

    - Physical
    - Psychological
    - Social
    - Spiritual

    (See specifics under "Data Collection")

STANDARD 3: PLANNING:

General Description:

The nurse will plan patient care based on identified actual and potential patient needs and problems. The nursing care plan is available and current.

Criteria:

1. The nurse will

    a) identify short and long term objectives of nursing actions in collaboration with the client and relevant others

    b) identify short and long term objectives of nursing actions which are consistent and congruent with the interdisciplinary plan for care

    c) state these objectives in behavioral terms specifying the desired results

    d) state a reasonable time period for the achievement of these objectives

e) consider environmental conditions which could affect achievement of these objectives

f) identify required resources

g) consider a number of nursing actions (i.e., teaching, supporting, counseling, informing, providing care) in accordance with the specified focus and modes of intervention

h) select nursing actions based on the highest probability of their effectiveness

i) communicate with appropriate others regarding the planned actions

Assessment Factors:

1. The nurse develops short and long term individual patient care plans to:

   a) provide patient with adequate nutritional balance (decrease or relieve anorexia, control nausea and/or vomiting, etc.)

   b) assist patient in achieving:

   - adequate ventilatory function
   - regular eliminatory pattern
   - balance between need for activity and rest

   c) assist patient to maintain optimal level of mobility and participate in activities of daily living

   d) assist patient to achieve a satisfactory comfort level

   e) protect or foster healthy sexual identity and pattern of functioning between patient and others

   f) protect patient from preventable complications of therapy such as: drug toxicity, skin reactions and/or breakdown, infection, bleeding dyscrasias

   g) assist patient and family to gain an understanding of the disease process and planned therapy

   h) assist patient and family to understand their feelings and reactions to having a cancer diagnosis and undergoing treatment

   i) assist patient and family to manage the psychological and social stresses associated with the cancer experience

j) include appropriate discharge planning so patient and family can manage at home (i.e., patient and family teaching and adequate support)

k) incorporate the care plans of other health professionals into the nursing care plan.

STANDARD 4: IMPLEMENTATION

General Description:

The nurse performs those nursing actions necessary to implement the care plan.

Criteria:

1. The nurse carries out individual patient care plan:

   a) performs nursing actions consistent with scientific principles and concepts in order to fulfill the care goals

   b) utilizes required knowledge, attitudes, skills and intellectual judgement

   c) identifies the need for changes in the care plan and adjusts the individual patient care plan or modifies nursing actions accordingly

   d) communicates with other members of the health team as well as the patient and family to facilitate continuity and consistency in care delivery

   e) accepts/encourages the shared responsibility with the patient and family for attaining care goals

   f) delegates appropriately to other health team members, the patient and/or family and co-ordinates the implementation of the care plan

   g) informs the patient and family about:

      - the nursing care plan
      - roles of health care team
      - available health care resources

      and when possible, about

      - changes in health status
      - total health care plan

h) provides the patient and family with the appropriate information needed to make decisions and choices about:

  - seeking assistance from health care resources
  - maintaining and using health care resources

  and, **when possible**, supplies the appropriate information for patients and families to make decisions about:

  - the direction of treatment (promote, restore, maintain health status and/or adjust to diagnosis and stage of illness).

Assessment Factors:

1. The nurse

   a) prepares for, initiates, monitors and discontinues prescribed treatment regimes following appropriate policies and procedures

   b) makes appropriate adjustments in individual care plans based on observations of patient's or family's:

      - physiological parameters
      - psychological/social response
      - teaching/learning needs
      - comfort level

   c) nursing actions:

      - are consistent with plan of care
      - are individualized to specific situation
      - provide for a safe therapeutic environment
      - employ teaching-learning opportunities for the patient and family

STANDARD 5: EVALUATION

General Description:

The nurse evaluates patient outcomes in relation to the care plan and evaluates all steps of the nursing process. Evaluation is a continuous process which leads to continuous data collection, planning and implementation.

Criteria:

1. The nurse

   a) utilizes current objective and subjective data to measure patients's progress towards goal achievement

   b) evaluates effectiveness of nursing actions in meeting the patient's nursing needs

   c) communicates the results of evaluation with other health team members

   d) makes appropriate changes in data-collection, analysis, planning and implementation (nursing process) as treatment modalities or patient's status changes

Assessment Factors:

1. The nurse:

   a) observes the results of each nursing action (chemotherapy administration, skin/mouth care, pain intervention, etc.) and compares to expected outcome

   b) in conjunction with patient and family compares the achieved outcome of the nursing process with the expected outcome (short and long term objectives) and determines if goals or approach need to be revised

   c) judges whether any treatment-related complications were preventable and corrects necessary factors.

OUTCOME STANDARDS

ACKNOWLEDGMENT

We acknowledge the contribution of the American Oncology Nursing Society and the American Nurses' Association.

OUTCOME STANDARDS

STANDARD 1:

The patient and the family possess knowledge about the disease and therapy in order to accomplish self-care, participation in therapy, optimal living and peaceful death.

Criteria:

1. The patient and family
    a) describe the state of the disease and therapy at a level consistent with their intellectual and emotional state
    b) participate in planning care and life activities
    c) have knowledge of community and personal resources that would provide information and/or services
    d) describe appropriate actions for possible oncological problems related to the disease
    e) describe the treatment schedule
    f) describe plans for maintaining valued life activities.

STANDARD 2:

1. The patient and the family manage stress within their individual physical, psychological and spiritual capacities and their value systems

Criteria:

1. The patient and family
    a) seek and use appropriate resources for support in coping with the disease, treatments and/or death
    b) communicate feelings about living with cancer
    c) participate in care and ongoing decision making
    d) Identify alternative resources when present coping strategies do not provide support

STANDARD 3:

The patient and family maintain an acceptable level of comfort (physical, social and psychological) throughout the course of the disease.

Criteria:

1. The patient and family

   a) can identify factors which influence their comfort level

   b) are aware of potential problems due to nausea and vomiting, pain, fatigue, hygiene

   c) have adequate knowledge and skills to manage problems related to their comfort.

STANDARD 4:

The patient and family are aware and accept changes in the patient's body image.

Criteria:

1. The patient and family

   a) identify actions needed to cope with changes in body image

   b) express feelings arising from changes in body image

   c) list resources available for managing changes in body image

   d) ask for assistance in managing changes in body image.

STANDARD 5:

The patient and partner will be able to discuss those aspects of the disease that may alter or threaten their sexuality and/or sexual identity.

Criteria:

1. The patient and partner

   a) identify potential or actual alterations in perception of sexuality or sexual function

b) identify alternate methods of expressing sexuality

c) discuss freely feelings related to changes in sexuality

d) seek appropriate resources to manage altered sexual functions.

STANDARD 6:

The patient and family can maintain an adequate nutritional and hydration status, in the presence of disease and treatment.

Criteria:

1. The patient and family

   a) are aware of such symptoms as anorexia, obstruction of GI tract, mucosal irritation, etc.

   b) can manage treatment for such symptoms as arise (setting realistic expectations of family and patient)

   c) possess adequate knowledge about their specific dietary needs

   d) know how to contact resource people.

STANDARD 7:

The patient and family have the knowledge to prevent or manage problems related to altered protective mechanisms (immune hematopoietic, integumentary, sensory and motor systems).

Criteria:

1. The patient and family

   a) list actions to prevent skin breakdown, mucosal trauma, infection and bleeding

   b) recognize signs and symptoms of infection, bleeding and sensory motor dysfunction

   c) list ways of contacting appropriate health team members when signs and symptoms of infection, bleeding and sensory motor changes occur.

STANDARD 8:

The patient and family maintain optimal activity and mobility to prevent further disability due to the disease process and therapy.

Criteria:

1. The patient and family
   - a) state the cause of immobility
   - b) describe an action plan to integrate alteration in mobility into their lifestyle
   - c) describe optimal level of activities of daily living in keeping with disease process and its treatment
   - d) list community resources and health services available for managing alterations in mobility
   - e) demonstrate skills in using aids to improve mobility
   - f) demonstrate skills to prevent complications arising from decreased mobility.

STANDARD 9:

The patient and family possess knowledge, skills to recognize and manage alterations in eliminatory patterns.

Criteria:

1. The patient and family
   - a) identify factors that may alter elimination such as stress, diet, physical activity and neurogenic conditions
   - b) state appropriate actions if changes in elimination patterns occur
   - c) demonstrate skills to manage altered elimination routes.

STANDARD 10:

The patient and family recognize factors that impair ventilatory function and can intervene to enhance ventilatory function.

Criteria:

1. The patient and family

    a) state plans for maximum conservation of energy

    b) list measures to decrease exposure to pulmonary irritants such as smoke, powders, aerosols, dust, environmental extremes

    c) list potential reasons for altered ventilation such as low hemoglobin, infection, anxiety, effusion, obstructions

    d) state appropriate plan of action should altered ventilatory function occur

    e) have skills to manage an altered airway if necessary.

STANDARD 11:

The patient and family will feel that their rights are always respected.

Rights:
- the right to privacy
- the right to be informed
- the right to be respected
- the right to equal access to good care
- the right to participate in the planning of care
- the right to practice self-care

Criteria:

1. The patient and family will

    a) have privacy

    b) be oriented to the treatment facility

        - hospital
        - out-patient clinics
        - self-help groups
        - professional resource persons
        - support services

    c) have information before each treatment or procedure is performed

    d) take part in decision-making as it relates to care and treatment

e) have assistance in performing self-care

f) be involved in planning care

g) have compensatory care when self-care is no longer possible.

STANDARD 12:

The patient and family receive necessary social and/or nursing assistance and/or other health care services to live or die at home, if that is so desired.

Criteria:

1. The patient and family

    a) have the assistance of social support services

    b) have the assistance of nursing and other health care assistance as necessary

    c) live or die at home, if that is so desired.

APPENDIX C

CROSS CANCER INSTITUTE

CONCEPTUAL FRAMEWORK FOR NURSING

NURSING MODEL AND STANDARDS OF PRACTICE

CROSS CANCER INSTITUTE

DEPARTMENT OF NURSING

CONCEPTUAL FRAMEWORK FOR NURSING

NURSING MODEL
AND
STANDARDS OF PRACTICE

1986

CONCEPTUAL FRAMEWORK FOR NURSING - CROSS CANCER INSTITUTE

INTRODUCTION

This Conceptual Framework provides the structure into which the process of nursing can be defined. The framework provides guidance for Practice, Research, and Education.

Practice

A Conceptual Framework is the blueprint for Nursing Practice.

Research

A Conceptual Framework is necessary for the development of nursing theory in order that we can predict and scientifically validate assumptions. Since nursing utilizes many theories from other disciplines (i.e. physical, psycho-social sciences), a framework will assist in the systematic organization and validation of the theories in terms of their meaning for nursing.

Education

A Conceptual Framework assists in definition, teaching and communication of nursing's unique body of knowledge.

CONCEPTUAL FRAMEWORK

The elements of the Conceptual Framework are the Focus, Process and Goal. Figure 1 illustrates the relationship between

1) the **Focus** (patient, family, community, nurse and other health care professionals)
2) the **Process** (nursing practice, research, and education) and
3) the **Goal** (health, quality of life, and wholeness).

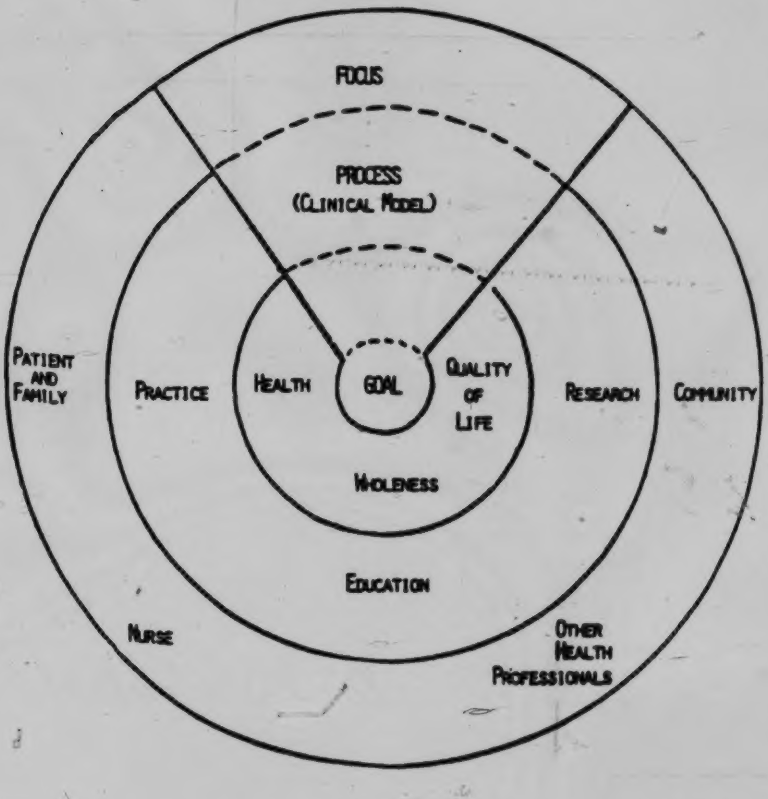

FIGURE 1. Elements of a Conceptual Framework for Nursing

KEY CONCEPTS

In order to expand on these elements, a number of key concepts are identified and supported by assumptions.

KEY CONCEPTS	ASSUMPTIONS
A. **FOCUS**	
Man and his behavior	
We believe that	People are bio-psycho-social-sexual-spiritual beings, in constant interaction with their environment. Human beings are capable of self-direction and initiate and perform activities in order to maintain their unique integrity as they experience life events. People have the potential to grow and to find meaning in their life experiences. A person's perception of self, others, and own situation is influenced by factors such as human biology, cultural conditioning, life experiences, and environment. People have freedom of choice and the right to make decisions about their own health. Personal interaction, socialization, and education influence the behavior choices in relation to a person's own health.
Nurse	
We believe that	In addition to the qualities attributed to man, nurses, as caregivers, utilize a disciplined intellectual approach combined with a therapeutic use of self to achieve the goals of nursing. Nurses recognize and utilize the unique services provided through the multi-disciplinary team to meet the complex needs of the patient and family. The goals of nursing are achieved through interpersonal acts and that attention must be directed to each participant in the act.

KEY CONCEPTS	ASSUMPTIONS
Nurse (continued)	
We believe that	It is important that the nurse have opportunity to identify, examine and share feelings and attitudes about herself and her work in a non-threatening environment.
B. **PROCESS**	
Nursing Practice	
We believe that	Nursing is practiced through utilization of the **nursing process** (assessment, planning, intervention, and evaluation), designed to assist individual(s) towards promotion of health, the maintenance of health, restoration of health, and to support in time of dying and bereavement. The practice settings where nursing occurs provide for promotion, maintenance and/or restoration of health and patient/family support throughout the oncology experience. Nursing has a unique function in which to assist man in those activities which enable him to be self-directed in maintaining his unique integrity and to find meaning in his life experiences. Nursing is a profession with rights and responsibilities which implies accountability, critical judgement, definition of a scientific body of knowledge, patient advocacy, health teaching, and creativity. Nursing's potential for meaningful service is dependent on the union of theory, practice, research, education and a responsibility to the changing health needs of society. Because the Institute is an integral part of the community, we acknowledge the obligation to act as a resource for patients, students, professionals, and the public regarding the impact of cancer, its detection, prevention, and treatment.

KEY CONCEPTS	ASSUMPTIONS
Nursing Practice (continued)	
We believe that	Underlying all nursing process is the concept of caring; that is, "being in relationship with", which gives meaning to and provides for growth of all parties in the relationship.
Research	
We believe that	Maintenance of nursing as a profession is dependent upon the development of a unique body of knowledge. Nursing research may range from theory development to clinical evaluation of current practice. Nurse researchers have an obligation to communicate results of their work to the nursing community, to other disciplines, and to the public.
Education	
We believe that	Oncology nursing is a distinct area of practice requiring specialized knowledge and skills. Learning is an ongoing process achieved through both formal and informal means. The individual has personal responsibility for professional self development. The organization has a responsibility to facilitate and promote educational opportunities.
C. **GOALS**	
Health	
We believe that	Health is a multidimensional state of well-being measurable on a continuum which goes beyond absence of disease or infirmity. Health is a dynamic process that is constantly changing with both the internal and external environment of the individual.

KEY CONCEPTS	ASSUMPTIONS
Health (continued)	
We believe that	Man has the right to be informed, the right to participate in his care, the right to privacy, and the right to equal access to health care.
Quality of Life	
We believe that	Quality of Life is a multidimensional and multicriterial concept which has a specific meaning for each individual that may change with time and circumstances. Man's view of what constitutes quality of life is influenced by human biology, cultural conditioning, and life experiences.
Wholeness	
We believe that	Affirmation of life occurs within the context of one's relationship with God or Superior Being, self, community, and environment. Man is a Whole composed of body, mind, emotions, and spirit, and is more than the sum of parts. Man is an individual in which an existing unity can be affirmed and where Spiritual well-being permeates and gives meaning to all life experiences.

APPENDIX D

COMPETENCY ANALYSIS PROFILE

A. HEALTH AND PHYSICAL ASSESSMENT

A.1 Practise assessment skills related to treatment modality and disease process			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

A.2 Communicate observations to appropriate health care providers			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

A.3 Teach self-assessment skills to others			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

A.4 Identify teaching needs in the area of prevention and detection			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

A.5 Participate in screening programs			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

A.6 Particirate in community awareness programs			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Add extra Physical competencies if wished.

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

B. INTRAVENOUS THERAPY

B.1 Follow recommended procedures for infection control

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

B.2 Teach patient about intravenous and central lines

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

B.3 Establish intravenous with scalp vein needle

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

B.4 Establish intravenous infusion with intracath

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

B.5 Maintain intravenous infusion

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

B.6 Operate intravenous pumps and controllers

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

B.7 Observe mental and physical condition of patient on intravenous therapy

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

B.8 Care for central lines

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

B.9 Draw blood from central lines or peripheral intravenous device

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

B. INTRAVENOUS THERAPY (continued)

B.10 Maintain arterial lines

Y	RN	JOB	ADV
	N/R		R
N	E		D

B.11 Administer blood products

Y	RN	JOB	ADV
	N/R		R
N	E		D

B.12 Administer medications intravenously

Y	RN	JOB	ADV
	N/R		R
N	E		D

B.13 Administer analgesics intravenously

Y	RN	JOB	ADV
	N/R		R
N	E		D

B.14 Administer and monitor total parenteral nutrition

Y	RN	JOB	ADV
	N/R		R
N	E		D

B.15 Identify adverse reactions and initiate appropriate action

Y	RN	JOB	ADV
	N/R		R
N	E		D

B.16 Establish and maintain heparin locks

Y	RN	JOB	ADV
	N/R		R
N	E		D

B.17 Discontinue I.V.

Y	RN	JOB	ADV
	N/R		R
N	E		D

Y	RN	JOB	ADV
	N/R		R
N	E		D

C. ANTINEOPLASTIC AGENTS, HORMONES AND IMMUNOTHERAPY

C.1 Teach patient and family			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

C.2 Provide psychological support			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

C.3 Follow protocol for administration			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

C.4 Ensure that appropriate tests are checked prior to administration			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

C.5 Monitor patient before, during and after administration			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

C.6 Provide nursing measures to lessen side effects			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

C.7 Practice safety measures in preparation and administration			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

C.8 Prepare agents for administration			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

C.9 Dispose of wastage appropriately			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

C. ANTINEOPLASTIC AGENTS, HORMONES AND IMMUNOTHERAPY (continued)

C.10 Administer antineoplastics, hormones and immunotherapeutic agents			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

C.11 Administer antineoplastics by bolus when appropriate			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

C.12 Recognize and initiate appropriate treatment for extravasation			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

C.13 Recognize side effects			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

C.14 Initiate appropriate treatment for side effects			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

C.15 Monitor patient's nutritional status			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Add extra Antineoplastic Agents, Hormones and Immunotherapy competencies if wished.

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

D. RADIATION THERAPY

<table><tr><td colspan="4">D.1 Teach patient and family</td></tr><tr><td>Y</td><td>RN</td><td>JOB</td><td>ADV</td></tr><tr><td rowspan="2">N</td><td>N/R</td><td colspan="2">R</td></tr><tr><td>E</td><td colspan="2">D</td></tr></table>

<table><tr><td colspan="4">D.2 Provide psychological support</td></tr><tr><td>Y</td><td>RN</td><td>JOB</td><td>ADV</td></tr><tr><td rowspan="2">N</td><td>N/R</td><td colspan="2">R</td></tr><tr><td>E</td><td colspan="2">D</td></tr></table>

<table><tr><td colspan="4">D.3 Follow protocol</td></tr><tr><td>Y</td><td>RN</td><td>JOB</td><td>ADV</td></tr><tr><td rowspan="2">N</td><td>N/R</td><td colspan="2">R</td></tr><tr><td>E</td><td colspan="2">D</td></tr></table>

<table><tr><td colspan="4">D.4 Ensure that appropriate tests are checked</td></tr><tr><td>Y</td><td>RN</td><td>JOB</td><td>ADV</td></tr><tr><td rowspan="2">N</td><td>N/R</td><td colspan="2">R</td></tr><tr><td>E</td><td colspan="2">D</td></tr></table>

<table><tr><td colspan="4">D.5 Provide nursing measures to lessen side effects</td></tr><tr><td>Y</td><td>RN</td><td>JOB</td><td>ADV</td></tr><tr><td rowspan="2">N</td><td>N/R</td><td colspan="2">R</td></tr><tr><td>E</td><td colspan="2">D</td></tr></table>

<table><tr><td colspan="4">D.6 Administer radio sensitizers and radio-protectors</td></tr><tr><td>Y</td><td>RN</td><td>JOB</td><td>ADV</td></tr><tr><td rowspan="2">N</td><td>N/R</td><td colspan="2">R</td></tr><tr><td>E</td><td colspan="2">D</td></tr></table>

<table><tr><td colspan="4">D.7 Practice radiation safety measures</td></tr><tr><td>Y</td><td>RN</td><td>JOB</td><td>ADV</td></tr><tr><td rowspan="2">N</td><td>N/R</td><td colspan="2">R</td></tr><tr><td>E</td><td colspan="2">D</td></tr></table>

<table><tr><td colspan="4">D.8 Operate after-loading equipment</td></tr><tr><td>Y</td><td>RN</td><td>JOB</td><td>ADV</td></tr><tr><td rowspan="2">N</td><td>N/R</td><td colspan="2">R</td></tr><tr><td>E</td><td colspan="2">D</td></tr></table>

<table><tr><td colspan="4">D.9 Monitor patient receiving external radiation therapy</td></tr><tr><td>Y</td><td>RN</td><td>JOB</td><td>ADV</td></tr><tr><td rowspan="2">N</td><td>N/R</td><td colspan="2">R</td></tr><tr><td>E</td><td colspan="2">D</td></tr></table>

D. **RADIATION THERAPY** (continued)

D.10 Monitor patient receiving internal radiation therapy			
Y	RN	JOB	ADV
	N/R		R
N	E		D

D.11 Recognize side effects			
Y	RN	JOB	ADV
	N/R		R
N	E		D

D.12 Initiate appropriate treatment for side effects			
Y	RN	JOB	ADV
	N/R		R
N	E		D

Add extra Radiation Therapy competencies if wished.

D.13 Monitor nutritional status			
Y	RN	JOB	ADV
	N/R		R
N	E		D

Y	RN	JOB	ADV
	N/R		R
N	E		D

Y	RN	JOB	ADV
	N/R		R
N	E		D

Y	RN	JOB	ADV
	N/R		R
N	E		D

Y	RN	JOB	ADV
	N/R		R
N	E		D

Y	RN	JOB	ADV
	N/R		R
N	E		D

E. INVASIVE DIAGNOSTIC AND THERAPEUTIC PROCEDURES

E.1 Teach specific procedure to patient

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

E.2 Provide psychological support

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

E.3 Ensure informed consent is obtained

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

E.4 Assemble necessary equipment

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

E.5 Assist with specific procedure

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

E.6 Perform procedures as qualified

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

E.7 Obtain specimens

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

E.8 Observe for procedure complications

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

E.9 Take appropriate action for procedure complications

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

E. INVASIVE DIAGNOSTIC AND THERAPEUTIC PROCEDURES (continued)

E.10 Provide nursing care related to procedure			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Add extra Invasive Diagnostic and Therapeutic Procedures competencies if wished.

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

F. EMERGENCY CARE

F.1 Assess situation

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

F.2 Summon assistance

Y	RN	JOB	ADV
E	N/R	R	
	E	D	

F.3 Perform basic life support

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

F.4 Use emergency equipment

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

F.5 Administer appropriate measures and drugs

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

F.6 Provide psychological support

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

F.7 Identify signs and symptoms of common oncological emergencies

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

F.8 Initiate appropriate nursing care for common oncological emergencies

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

F.9 Retain control of situation and self

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

G. **RESEARCH**

G.1 Identify research question

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G.2 Use channels for research review

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G.3 Conduct research

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G.4 Evaluate research findings

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G.5 Disseminate research findings

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G.6 Utilize appropriate research findings in clinical practice

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G.7 Develop personal views about the ethics of research

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G.8 Volunteer as a subject in research when appropriate

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G.9 Ensure informed consent is obtained

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G. RESEARCH (continued)

G.10 Follow research protocols

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G.11 Respond with discretion to questions about unconventional treatments

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G.12 Act as a patient advocate

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G.13 Question research practices

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

G.14 Assist in data collection

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Add extra Research competencies if wished.

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

H. PATIENT AND FAMILY EDUCATION

H.1 Utilize principles of teaching and learning

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

H.2 Assess learning needs

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

H.3 Assess learner characteristics

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

H.4 Assess learning environment

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

H.5 Formulate learning objectives

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

H.6 Design teaching plan

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

H.7 Implement teaching plan

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

H.8 Evaluate attainment of learning objectives

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

H.9 Assist in development of teaching materials

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

H. PATIENT AND FAMILY EDUCATION (continued)

H.10 Provide access to resource information			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Add extra Patient and Family Education competencies if wished.

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

I. REHABILITATION AND FOLLOW UP

I.1 Identify patient and family needs			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

I.2 Assist patient to adjust to a modified life style			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

I.3 Provide information about available resources			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

I.4 Make referrals to appropriate agencies			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

I.5 Ensure access to necessary aids for modified life styles			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

I.6 Teach correct use of aids			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

I.7 Ensure appropriate follow up			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

I.8 Evaluate rehabilitation and follow up intervention			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

J. PAIN MANAGEMENT

J.1 Respond to verbal and non-verbal indications of pain

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

J.2 Assess pain

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

J.3 Utilize current principles of pain management

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

J.4 Administer drugs

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

J.5 Administer nitrous oxide

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

J.6 Utilize non-invasive techniques

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

J.7 Ensure that pain chart is maintained

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

J.8 Evaluate effect of drugs and non-invasive techniques

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

J.9 Monitor patient for complications of medications

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

J. PAIN MANAGEMENT (continued)

J.10 Initiate doses of analgesics as ordered

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

J.11 Provide physical comfort

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

J.12 Provide psychological support

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Add extra Pain Management competencies if wished.

J.13 Teach patient and family

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

K. PSYCHOLOGICAL AND SPIRITUAL CARE

K.1 Develop personal supportive skills

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

K.2 Establish therapeutic relationship

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

K.3 Provide a supportive environment

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

K.4 Assess spiritual and psychological needs

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

K.5 Demonstrate acceptance of individual spiritual beliefs

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

K.6 Identify personal spiritual beliefs

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

K.7 Stimulate and encourage family communication

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

K.8 Listen actively

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

K.9 Interpret body language

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

K. PSYCHOLOGICAL AND SPIRITUAL CARE (continued)

K.10 Empathize with patient and significant others			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

K.11 Assist in problem solving			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

K.12 Make appropriate referrals			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Add extra Psychological and Spiritual Care competencies if wished.

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
H	E	D	

L. DEATH AND DYING

L.1 Identify and accept personal views toward death			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

L.2 Identify needs of dying patient and significant others			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

L.3 Assess needs and apply symptom control measures			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

L.4 Provide physical comfort measures			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

L.5 Provide psychological support			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

L.6 Make referrals for identified needs			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

L.7 Participate in bereavement follow up			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

L.8 Provide emotional support to colleagues			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

M. TEACHING OF PEERS AND COLLEAGUES

M.1 Assume responsibility for own learning			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

M.2 Act as a role model			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

M.3 Use library and resource material			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

M.4 Act as a preceptor for new staff			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

M.5 Seek information from other health care providers			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

M.6 Collaborate with peers and other health care providers			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

M.7 Assist in planning of workshops and seminars			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

M.8 Present at nursing rounds and other teaching programs			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

M.9 Report on conferences attended			
Y	RN	JOB	ADV
N	N/R	R	
	E	D	

M. TEACHING OF PEERS AND COLLEAGUES (continued)

M.10 Contribute to nursing newsletter and other publications			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

M.11 Develop teaching resource material			
Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Add extra Teaching of Peers and Colleagues competencies if wished.

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

Y	RN	JOB	ADV
	N/R	R	
N	E	D	

N. SEXUALITY

N.1 Examine and accept own beliefs and attitudes toward sexuality

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

N.2 Identify limitations due to disease or treatment

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

N.3 Demonstrate acceptance of changes in patient's body image and function

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

N.4 Assist patient in verbalizing concerns

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

N.5 Encourage communication between patient and significant others

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

N.6 Provide psychological support

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Add extra Sexuality competencies if wished.

N.7 Inform patient of available aids and resources

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

Y	RN	JOB	ADV
N	N/R	R	
	E	D	

O. **ADDITIONAL COMPETENCIES THAT YOU FEEL ARE MISSING FROM THE PROFILE**

Please identify competency using appropriate letter (e.g. A. Physical; B. Intravenous Therapy; etc.). Competencies which do not fit into any category may also be added on these sheets.

<table><tr><td colspan="7"></td></tr><tr><td>Y</td><td colspan="2">RN</td><td colspan="2">JOB</td><td colspan="2">ADV</td></tr><tr><td rowspan="2">N</td><td colspan="3">N/R</td><td colspan="3">R</td></tr><tr><td colspan="3">E</td><td colspan="3">D</td></tr></table>

<table><tr><td colspan="7"></td></tr><tr><td>Y</td><td colspan="2">RN</td><td colspan="2">JOB</td><td colspan="2">ADV</td></tr><tr><td rowspan="2">N</td><td colspan="3">N/R</td><td colspan="3">R</td></tr><tr><td colspan="3">E</td><td colspan="3">D</td></tr></table>

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APPENDIX E

DIRECTIONS FOR COMPLETING THE PROFILE

COMPETENCY ANALYSIS PROFILE

OF

ONCOLOGY NURSING

Directions for Completing the Profile

The enclosed tables (pp 2-30) list competencies which have been identified as essential for oncology nursing.

Please complete the tables according to the instructions outlined on the following pages. Please read the instructions completely before commencing.

Step 1: Familiarise yourself with the layout of the tables. You will notice that the heading of each profile is a category of a competence or skill. Following each category are listed several individual competency statements.

Step 2: Each competency statement (see below) has spaces below it for you to complete. You are asked to answer 3 questions for each statement. (Please see page 2 for explanation.)

<table>
<tr><td>Competency Statement</td><td colspan="7">X</td><td></td></tr>
<tr><td rowspan="3">Question A</td><td>Y</td><td colspan="2">RN</td><td colspan="2">JOB</td><td colspan="2">ADV</td><td>Question B</td></tr>
<tr><td rowspan="2">N</td><td colspan="3">N/R</td><td colspan="3">R</td><td>Question C</td></tr>
<tr><td colspan="3">E</td><td colspan="3">D</td><td>Question D</td></tr>
</table>

QUESTION A:

DO YOU USE THIS COMPETENCY IN YOUR JOB?

If Yes, circle the "Y" and go to Question B.
If No, circle the "N" and go to Question C.

QUESTION B:

HOW DID YOU INITIALLY ACQUIRE THE COMPETENCY?

Circle the appropriate response. Circle one only.

RN	in your basic nursing education program
JOB	on the job, including staff development programs
ADV	advanced training beyond basic nursing program, i.e., workshops, credit courses

QUESTION C:

WHICH OF THE FOLLOWING STATEMENTS DESCRIBES WHY YOU DO NOT USE THE COMPETENCY?

Circle the appropriate response.

N/R	The competency is not relevant to my present job, i.e., no need for it in the area in which I work, responsibility of another team member.
R	The competency is relevant to my job but I require additional training.

QUESTION D:

Please note that this question is only applicable to those who responded

either 1) Yes to Question A

or 2) No to Question A and Relevant to Question C

N.B. It is not applicable if the competency is Not Relevant in your area.

WHICH OF THE FOLLOWING STATEMENTS BEST DESCRIBES THIS COMPETENCY?

Circle the appropriate response.

E	The competency is ESSENTIAL in order to perform adequately in my job. (Entry)
D	The competency may be required later in order to enhance performance in my job. (Developmental)

THE FOLLOWING ARE THREE EXAMPLES:

Competency Statement	Remove sutures.				
Question A	[✓ Y]	[✓ RN]	JOB	ADV	Question B
		N/R		R	Question C
	N	[✓ E]		D	Question D

Question A: You use this competency in your job.
Question B: You acquired the competency in your basic nursing program.
Question D: You perceive this competency to be essential for performing your job adequately. (Entry)

Competency Statement	Insert endotracheal tube.				
Question A	Y	RN	JOB	ADV	Question B
		[✓ N/R]		R	Question C
	[✓ N]	E		D	Question D

Question A: You do not use this competency in your job.
Question C: You do not perceive this competency to be relevant for your job.
Question D: Not applicable.

Competency Statement	Design patient teaching programs.				
Question A	Y	RN	JOB	ADV	Question B
		N/R		[✓ R]	Question C
	[✓ N]	E		[✓ D]	Question D

Question A: You do not use this competency in your job.
Question C: You perceive this competency to be relevant to your job but you require further training.
Question D: You perceive this competency to be developmental - it will enhance your job performance.

DIRECTIONS FOR COMPLETING THE PROFILE

Step 3: Empty boxes have been provided for you to add additional competencies that you feel are missing from the profile.

Step 4: Return the completed profile with the attached data sheet in the enclosed envelope.

Step 5: Add any comments you may have about The Competency Analysis Profile below.

Many thanks for your anticipated assistance.

Marion J. Boyd
Education Coordinator

January 25, 1985

APPENDIX F

PARTICIPANT DEMOGRAPHIC SHEET

Please complete this page and enclose with the profile. If you provide your name, a summary of the responses will be forwarded to you. All individual responses will be confidential.

1. Name: (Optional) ______________________________

2. Current area of work (Check the one most applicable):

   a) Outpatient Department ☐
   b) Day Care Setting ☐
   c) Radiation Therapy ☐
   d) Supportive Care ☐
   e) Operating Room ☐
   f) Inpatient Units ☐
   g) Research ☐
   h) Other (please specify) ______________

3. Indicate whether you work: Full-time ☐
   Part-time: more than 16 hrs/week ☐
   16 hrs or less/week ☐

4. Length of time in your present position:

   Less than 1 year ☐ 1-4 years ☐ 5-9 years ☐ 10+ years ☐

5. Total length of time in oncology nursing:

   Less than 1 year ☐ 1-4 years ☐ 5-9 years ☐ 10+ years ☐

6. Basic nursing education:

   R.N. Diploma - hospital ☐
   R.N. Diploma - college ☐
   B.Sc.N. ☐

7. Education beyond Basic Education:

   Course work towards Baccalaureate Degree ☐
   Baccalaureate Degree preparation other than Nursing ☐
   B.Sc.N. ☐
   Master's Degree preparation other than Nursing ☐
   M.N. ☐
   Ph.D. ☐
   Post Graduate course in Oncology Nursing ☐

8. Year of Graduation from Basic Nursing Education:

APPENDIX G

LETTERS TO PARTICIPANTS

January 9, 1985

■

Dear ■:

Thank you for participating in the pilot testing of the questionnaire on competencies for Oncology Nursing. Your input was of great value to me and your suggestions will be incorporated into the revised questionnaire.

I plan to circulate the questionnaire to all nurses in the Institute during January. The results will be shared with you once they have been analysed.

Once again, thank you for your support.

Yours sincerely,

Marion J. Boyd
Education Coordinator

MJB:emm
Encl.

January 25, 1985

Cross Cancer Institute
11560 University Avenue
Edmonton, Alberta

Dear

I am presently completing graduate studies in the Department of Educational Administration at the University of Alberta.

As part of my studies, I am developing a profile of competencies necessary to function in Oncology nursing. These competencies will then be used to develop educational programs for nurses choosing to specialise in this area.

I am requesting your assistance in validating the enclosed profile which was prepared by eight staff nurses from within the Cross Cancer Institute. I am also requesting some information about yourself and your Oncology nursing experience. Please note that your anonymity will be preserved.

Completion of this questionnaire should take approximately 45 minutes of your time. Please return the completed profile to me in the enclosed envelope by March 18th, 1985. If you have any questions or concerns, please feel free to contact me at 8746.

Yours sincerely,

Marion J. Boyd
Education Coordinator

MJB:emm
Encl.

February 21, 1985

[redacted]

Dear [redacted]:

As yet I have not received back all validated Competency Analysis Profiles of Oncology Nursing which were distributed on January 29th, 1985.

If you have not yet completed your copy I would be most grateful if you could do so. Should you have misplaced it, another copy can be obtained from my office.

If you have already completed and returned your copy, thank you for your assistance.

Yours sincerely,

Marion J. Boyd
Education Coordinator
MJB:emm